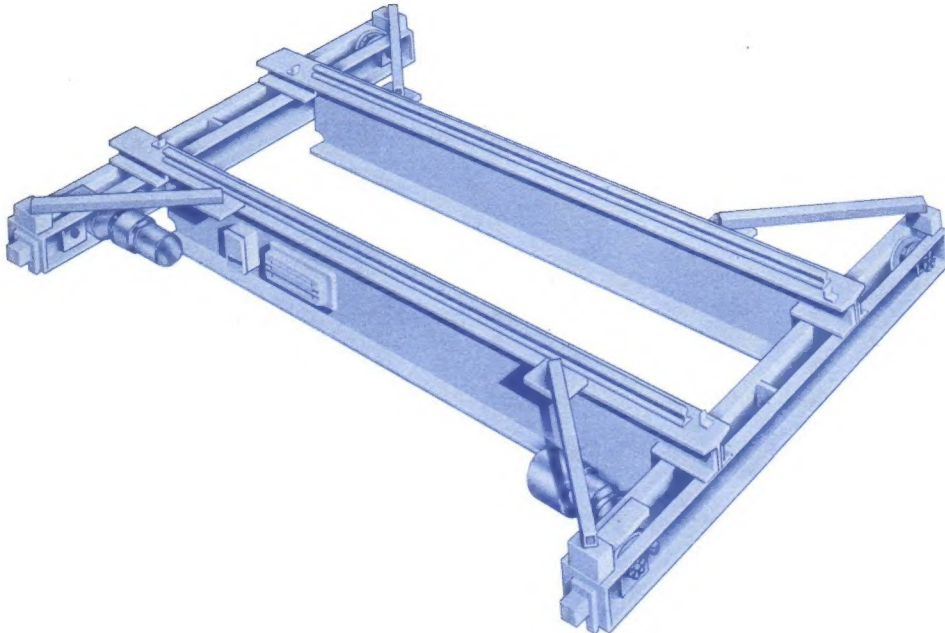




WRIGHT® WORK-RATED®
SERIES 543
TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE

CAPACITIES 3 to 30 TONS SPANS to 75 FEET



The *Wright Work-rated®* Series 543 top running double girder motor driven dual drive crane is engineered for industrial service. The double bridge beam is best where maximum height of lift is important.

The Series 543 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 543 crane is offered in capacities from three through thirty tons, with spans up to 75 feet, and with a standard bridge travel speed of 70 or 80 FPM single speed. 125-140 and 160-180 FPM are optional.

Bridge consists of two heavy section wide flange girders rigidly bolted to end truck for in-square operation. Latticed truss outriggers braced to both girders are used on longer spans.

The end trucks are of welded steel channel construction, equipped with diaphragms, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

The enclosed dual drive helical gear reduction units, complete with ACM control on single and two speed and A.C. disc brakes, provide smooth bridge motion and excellent load control. The Acco ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motion.

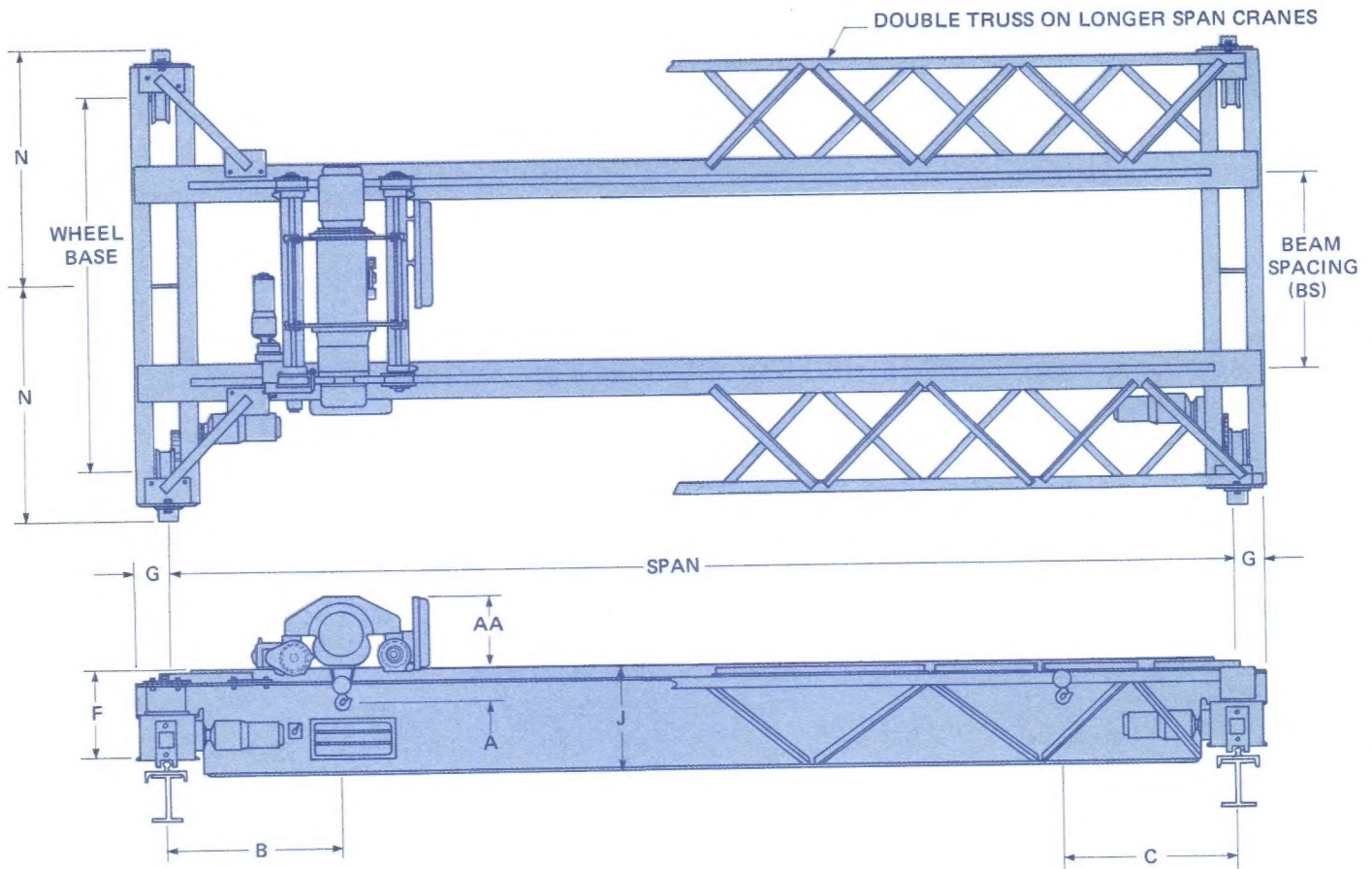
Standard electrical equipment includes NEMA type 3R enclosure, main-line magnetic contactor, manually operated fuseable disconnect switch with lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Wright cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.

3 to 30 TONS

WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER MOTORIZED DUAL DRIVE CRANE

54-2



A dimension represents hoist headroom. Refer to *Work-rated* top running trolley-hoist data pages, section 34.

B and C dimension represents hoist end approach. Refer to *Work-rated* top running trolley hoist data pages and add 7" to bumper dimension measured from center line of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated* top running trolley-hoist data pages.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.
See modification and accessories.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located. (Acco standard on left hand runway). Dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.

| End Truck (c) | Wheel Base | Beam Spacing (b) | Wheel Tread Dia. | G | N |
|---------------|------------|------------------|------------------|--------|------------|
| 4430010 | 8'-4" | 60" | 8" | 5-3/4" | 5'-0" |
| 4430020 | 8'-4" | 60" | 10" | 6-1/2" | 5'-1-1/2" |
| 4430030 | 9'-4" | 60" | 10" | 6-1/2" | 6'-10-1/2" |
| 4430040 | 9'-4" | 78" | 10" | 6-1/2" | |
| 4430050 | 9'-4" | 60" | 18" | 7-3/8" | |
| 4430060 | 9'-4" | 78" | 18" | 7-3/8" | |
| 4430070 | 10'-10" | 96" | 18" | 7-3/8" | 7'-7-1/2" |
| 4430080 | 10'-10" | 60" | 18" | 7-3/8" | |
| 4430090 | 10'-10" | 78" | 18" | 7-3/8" | |
| 4430100 | 12'-4" | 60" | 18" | 7-3/8" | 7'-10" |
| 4430110 | 12'-4" | 78" | 18" | 7-3/8" | |
| 4430120 | 9'-4" | 60" | 18" | 7-3/8" | 6'-10-1/2" |
| 4430130 | 9'-4" | 78" | 18" | 7-3/8" | |



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-3 Issued 3-20-87

**3 to 30
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | (e) Outrigger | HP for FPM (d) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|--|----------------|--------|--------|----------------|----------------------------|
| | | | | | | | | 70 | 125 | 160 | | |
| | | | | | | | | 80 | 140 | 180 | | |
| 3 | 25 | 60 | 5430010 | 4430010 | 18-3/4 | 17-1/4 | D.T. D.T. D.T. D.T. D.T. | 1/2 | 1/2 | 1 | 5,160 | 6,110 |
| | 31 | 60 | 5430020 | 4430010 | 19 | 17-1/4 | | | | | 6,562 | 6,460 |
| | 35 | 60 | 5430030 | 4430010 | 19-1/4 | 17-1/4 | | | | | 7,650 | 6,733 |
| | 40 | 60 | 5430040 | 4430010 | 21 | 17-1/4 | | | | | 9,750 | 7,258 |
| | 45 | 60 | 5430050 | 4430010 | 24-1/2 | 17-1/4 | | | 13,522 | | 8,200 | |
| | 52 | 60 | 5430060 | 4430010 | 26-3/4 | 17-1/4 | | 15,326 | 8,652 | | | |
| | 55 | 60 | 5430070 | 4430030 | 32-1/2 | 19-1/4 | | 18,242 | 9,380 | | | |
| | 60 | 60 | 5430080 | 4430030 | 32-1/2 | 19-1/4 | | 19,650 | 9,590 | | | |
| | 65 | 60 | 5431010 | 4430080 | 35-3/4 | 25-5/8 | | 25,195 | 10,976 | | | |
| 70 | 60 | 5431020 | 4430100 | 35-3/4 | 25-5/8 | 3/4 | 1-1/2 | 2 | 26,853 | 11,391 | | |
| 75 | 60 | 5431030 | 4430100 | 38-1/4 | 25-5/8 | | | | 30,895 | 12,402 | | |
| 5 | 25 | 60 | 5430090 | 4430010 | 19 | 17-1/4 | D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. D.T. | 1/2 | 3/4 | 1 | 5,660 | 8,880 |
| | | 78 | 5430100 | 4430040 | 19 | 19-1/4 | | | | | 6,482 | 9,085 |
| | 29 | 60 | 5430110 | 4430010 | 19-1/4 | 17-1/4 | | | | | 6,666 | 9,132 |
| | | 78 | 5430120 | 4430040 | 19-1/4 | 19-1/4 | | | | | 7,486 | 9,337 |
| | 35 | 60 | 5430130 | 4430010 | 19-1/4 | 17-1/4 | | | | | 8,350 | 9,553 |
| | | 78 | 5430140 | 4430040 | 19-1/4 | 19-1/4 | | | | | 9,170 | 9,758 |
| | 40 | 60 | 5430150 | 4430010 | 21 | 17-1/4 | | | | | 11,350 | 10,303 |
| | | 78 | 5430160 | 4430040 | 21 | 19-1/4 | | | | | 12,170 | 10,508 |
| | 45 | 60 | 5430170 | 4430010 | 26-3/4 | 17-1/4 | | | | | 13,522 | 10,845 |
| | | 78 | 5430180 | 4430040 | 26-3/4 | 19-1/4 | | | | | 14,342 | 11,050 |
| | 51 | 60 | 5430190 | 4430010 | 26-3/4 | 17-1/4 | | | | | 15,070 | 11,232 |
| | | 78 | 5430200 | 4430040 | 26-3/4 | 19-1/4 | | | | | 15,890 | 11,437 |
| | 55 | 60 | 5430210 | 4430030 | 32-1/2 | 19-1/4 | | | 1 | 1-1/2 | 18,240 | 12,025 |
| | | 78 | 5430220 | 4430040 | 32-1/2 | 19-1/4 | | | | | 18,240 | 12,025 |
| | 60 | 60 | 5430230 | 4430030 | 32-1/2 | 19-1/4 | | | | | 19,650 | 12,378 |
| | | 78 | 5430240 | 4430040 | 32-1/2 | 19-1/4 | | | | | 19,650 | 12,378 |
| | 65 | 60 | 5431040 | 4430080 | 35-3/4 | 25-5/8 | | | | | 3/4 | 1-1/2 |
| | | 78 | 5431050 | 4430090 | 35-3/4 | 25-5/8 | | 25,195 | 13,764 | | | |
| | 70 | 60 | 5431060 | 4430100 | 35-3/4 | 25-5/8 | | 26,853 | 14,179 | | | |
| | | 78 | 5431070 | 4430110 | 35-3/4 | 25-5/8 | | 26,853 | 14,179 | | | |
| | 75 | 60 | 5431080 | 4430100 | 38-1/4 | 25-5/8 | | 1 | | | 30,895 | |
| | | 78 | 5431090 | 4430110 | 38-1/4 | 25-5/8 | | | | | 30,895 | 15,190 |

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
- (b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.
- (c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.
- (d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.
- (e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.
Contact factory for dimensions when crane is furnished with footwalk.



WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE

54-4 Issued 3-20-87

**3 to 30
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | (e) Outrigger | HP for FPM (d) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|------------------|----------------|------------|------------|----------------|----------------------------|
| | | | | | | | | 70 80 | 125 140 | 160 180 | | |
| 7-1/2 | 25 | 60 | 5430250 | 4430020 | 19-1/4 | 19-1/4 | | | | | 6,430 | 11,947 |
| | | 78 | 5430260 | 4430040 | 19-1/4 | 19-1/4 | | | | | 6,830 | 12,047 |
| | 31 | 60 | 5430270 | 4430020 | 19-1/4 | 19-1/4 | | | 3/4 | 1 | 8,034 | 12,348 |
| | | 78 | 5430280 | 4430040 | 19-1/4 | 19-1/4 | | | | | 8,434 | 12,448 |
| | 36 | 60 | 5430290 | 4430020 | 21 | 19-1/4 | | | | | 10,826 | 13,046 |
| | | 78 | 5430300 | 4430040 | 21 | 19-1/4 | | | | | 11,226 | 13,146 |
| | 38 | 60 | 5430310 | 4430020 | 24-1/2 | 19-1/4 | | | | | 11,298 | 13,164 |
| | | 78 | 5430320 | 4430040 | 24-1/2 | 19-1/4 | | | | | 11,698 | 13,264 |
| | 42 | 60 | 5430330 | 4430020 | 26-3/4 | 19-1/4 | | 1/2 | | | 13,166 | 13,631 |
| | | 78 | 5430340 | 4430040 | 26-3/4 | 19-1/4 | | | 1 | | 13,566 | 13,731 |
| | 46 | 60 | 5430350 | 4430020 | 26-3/4 | 19-1/4 | | | | 1-1/2 | 14,198 | 13,889 |
| | | 78 | 5430360 | 4430040 | 26-3/4 | 19-1/4 | | | | | 14,598 | 13,989 |
| | 51 | 60 | 5430370 | 4430020 | 27 | 19-1/4 | | | | | 16,814 | 14,543 |
| | | 78 | 5430380 | 4430040 | 27 | 19-1/4 | | | | | 17,214 | 14,643 |
| | 56 | 60 | 5430390 | 4430030 | 32-1/2 | 19-1/4 | D.T. | | | | 18,522 | 14,970 |
| | | 78 | 5430400 | 4430040 | 32-1/2 | 19-1/4 | D.T. | | | | 18,533 | 14,970 |
| | 60 | 60 | 5430410 | 4430030 | 32-3/4 | 19-1/4 | D.T. | 3/4 | | | 21,690 | 15,762 |
| | | 78 | 5430420 | 4430040 | 32-3/4 | 19-1/4 | D.T. | | 1-1/2 | | 21,690 | 15,762 |
| | 65 | 60 | 5431100 | 4430080 | 35-3/4 | 25-5/8 | D.T. | | | | 25,512 | 16,718 |
| | | 78 | 5431110 | 4430090 | 35-3/4 | 25-5/8 | D.T. | | | 2 | 25,512 | 16,718 |
| 70 | 60 | 60 | 5431120 | 4430100 | 38-1/4 | 25-5/8 | D.T. | | | | 29,584 | 17,736 |
| | 78 | 78 | 5431130 | 4430110 | 38-1/4 | 25-5/8 | D.T. | 1 | | | 29,584 | 17,736 |
| 75 | 60 | 60 | 5431140 | 4430100 | 38-3/4 | 25-5/8 | D.T. | | 2 | 3 | 33,492 | 18,713 |
| | 78 | 78 | 5431150 | 4430110 | 38-3/4 | 25-5/8 | D.T. | | | | 33,492 | 18,713 |
| 10 | 25 | 60 | 5430430 | 4430020 | 19-1/4 | 19-1/4 | | | | | 6,930 | 15,222 |
| | | 78 | 5430440 | 4430040 | 19-1/4 | 19-1/4 | | | | | 7,330 | 15,322 |
| | 28 | 60 | 5430450 | 4430020 | 19-1/4 | 19-1/4 | | | | | 7,482 | 15,360 |
| | | 78 | 5430460 | 4430040 | 19-1/4 | 19-1/4 | | | | | 7,882 | 15,460 |
| | 33 | 60 | 5430470 | 4430020 | 21 | 19-1/4 | | | 1 | | 10,118 | 16,019 |
| | | 78 | 5430480 | 4430040 | 21 | 19-1/4 | | | | | 10,518 | 16,119 |
| | 37 | 60 | 5430490 | 4430020 | 26-3/4 | 19-1/4 | | 1/2 | | 1-1/2 | 11,878 | 16,459 |
| | | 78 | 5430500 | 4430040 | 26-3/4 | 19-1/4 | | | | | 12,278 | 16,559 |
| | 42 | 60 | 5430510 | 4430020 | 26-3/4 | 19-1/4 | | | | | 13,166 | 16,781 |
| | | 78 | 5430520 | 4430040 | 26-3/4 | 19-1/4 | | | | | 13,566 | 16,881 |
| | 46 | 60 | 5430530 | 4430020 | 27 | 19-1/4 | | | | | 15,394 | 17,338 |
| | | 78 | 5430540 | 4430040 | 27 | 19-1/4 | | | | | 15,794 | 17,438 |
| | 51 | 60 | 5430550 | 4430020 | 27-1/4 | 19-1/4 | | 3/4 | | | 18,242 | 18,050 |
| | | 78 | 5430560 | 4430040 | 27-1/4 | 19-1/4 | | | | | 18,642 | 18,150 |
| | 54 | 60 | 5430570 | 4430030 | 32-3/4 | 19-1/4 | D.T. | | 1-1/2 | | 18,930 | 18,222 |
| | | 78 | 5430580 | 4430040 | 32-3/4 | 19-1/4 | D.T. | | | 2 | 18,930 | 18,222 |
| | 60 | 60 | 5430590 | 4430030 | 35-3/4 | 19-1/4 | D.T. | | | | 21,930 | 18,972 |
| | | 78 | 5430600 | 4430040 | 35-3/4 | 19-1/4 | D.T. | | | | 21,930 | 18,972 |
| 65 | 60 | 60 | 5431160 | 4430080 | 38-1/4 | 25-5/8 | D.T. | | | | 27,462 | 20,355 |
| | 78 | 78 | 5431170 | 4430090 | 38-1/4 | 25-5/8 | D.T. | | | | 27,462 | 20,355 |
| 70 | 60 | 60 | 5431180 | 4430100 | 38-3/4 | 25-5/8 | D.T. | 1 | 2 | 3 | 31,570 | 21,382 |
| | 78 | 78 | 5431190 | 4430110 | 38-3/4 | 25-5/8 | D.T. | | | | 31,570 | 21,382 |

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE

54-5 Issued 3-20-87

**3 to 30
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | e Outrigger | HP for FPM (d) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|----------------|-------|-----|----------------|----------------------------|
| | | | | | | | | 80 | 140 | 180 | | |
| 15 | 25 | 60 | 5430610 | 4430050 | 24-3/4 | 26 | | | | | 10,210 | 21,892 |
| | | 78 | 5430620 | 4430060 | 24-3/4 | 26 | | | | | 10,210 | 21,892 |
| | 30 | 60 | 5430630 | 4430050 | 27-1/8 | 26 | | | | 2 | 12,050 | 22,352 |
| | | 78 | 5430640 | 4430060 | 27-1/8 | 26 | | | 1-1/2 | | 12,050 | 22,352 |
| | 36 | 60 | 5430650 | 4430050 | 27-1/8 | 26 | | | | | 13,598 | 22,739 |
| | | 78 | 5430660 | 4430060 | 27-1/8 | 26 | | | | | 13,598 | 22,739 |
| | 40 | 60 | 5430670 | 4430050 | 27-3/8 | 26 | | | | | 15,670 | 23,257 |
| | | 78 | 5430680 | 4430060 | 27-3/8 | 26 | | | | | 15,670 | 23,257 |
| | 44 | 60 | 5430690 | 4430050 | 27-5/8 | 26 | | | | | 18,038 | 23,849 |
| | | 78 | 5430700 | 4430060 | 27-5/8 | 26 | | | | | 18,038 | 23,849 |
| | 49 | 60 | 5430710 | 4430050 | 30-1/2 | 26 | | | | | 21,070 | 24,606 |
| | | 78 | 5430720 | 4430060 | 30-1/2 | 26 | | | | | 21,070 | 24,606 |
| | 54 | 60 | 5430730 | 4430050 | 36 | 26 | D.T. | | 2 | 3 | 21,390 | 24,687 |
| | | 78 | 5430740 | 4430060 | 36 | 26 | D.T. | | | | 21,390 | 24,687 |
| | 60 | 60 | 5430750 | 4430050 | 38-5/8 | 26 | D.T. | | | | 25,362 | 25,680 |
| | | 78 | 5430760 | 4430060 | 38-5/8 | 26 | D.T. | | | | 25,362 | 25,680 |
| | 64 | 60 | 5431200 | 4430080 | 39 | 26 | D.T. | | | | 28,908 | 26,570 |
| | | 78 | 5431210 | 4430090 | 39 | 26 | D.T. | | | | 28,908 | 26,570 |
| | 68 | 60 | 5431220 | 4430100 | 39-1/4 | 26 | D.T. | 1-1/2 | | | 33,246 | 27,655 |
| | | 78 | 5431230 | 4430110 | 39-1/4 | 26 | D.T. | | 3 | | 33,246 | 27,655 |
| 20 | 25 | 60 | 5430770 | 4430050 | 24-3/4 | 26 | | | | | 10,210 | 27,918 |
| | | 78 | 5430780 | 4430060 | 24-3/4 | 26 | | | | | 10,210 | 27,918 |
| | 32 | 96 | 5430790 | 4430070 | 24-3/4 | 26 | | | | | 10,450 | 27,978 |
| | | 60 | 5430800 | 4430050 | 27-1/8 | 26 | | | | | 12,566 | 28,507 |
| | 36 | 78 | 5430810 | 4430060 | 27-1/8 | 26 | | | | | 12,566 | 28,507 |
| | | 96 | 5430820 | 4430070 | 27-1/8 | 26 | | | | | 12,806 | 28,567 |
| | 39 | 60 | 5430830 | 4430050 | 27-3/8 | 26 | | 1 | | | 14,534 | 29,000 |
| | | 78 | 5430840 | 4430060 | 27-3/8 | 26 | | | 2 | | 14,534 | 29,000 |
| | 44 | 96 | 5430850 | 4430070 | 27-3/8 | 26 | | | | | 14,774 | 29,059 |
| | | 60 | 5430860 | 4430050 | 27-5/8 | 26 | | | | | 16,478 | 29,485 |
| | 48 | 78 | 5430870 | 4430060 | 27-5/8 | 26 | | | | | 16,478 | 29,485 |
| | | 96 | 5430880 | 4430070 | 27-5/8 | 26 | | | | | 16,718 | 29,545 |
| | 52 | 60 | 5430890 | 4430050 | 30-1/2 | 26 | | | | 3 | 19,358 | 30,205 |
| | | 78 | 5430900 | 4430060 | 30-1/2 | 26 | | | | | 19,358 | 30,205 |
| | 56 | 96 | 5430910 | 4430070 | 30-1/2 | 26 | | | | | 19,598 | 30,265 |
| | | 60 | 5430920 | 4430050 | 36-1/4 | 26 | D.T. | | | | 20,662 | 30,521 |
| | 60 | 78 | 5430930 | 4430060 | 36-1/4 | 26 | D.T. | | | | 20,662 | 30,521 |
| | | 96 | 5430940 | 4430070 | 36-1/4 | 26 | D.T. | | | | 20,862 | 30,581 |
| | 64 | 60 | 5430950 | 4430050 | 36-1/4 | 26 | D.T. | | | | 21,998 | 30,865 |
| | | 78 | 5430960 | 4430060 | 36-1/4 | 26 | D.T. | | | | 21,998 | 30,865 |
| | 68 | 96 | 5430970 | 4430070 | 36-1/4 | 26 | D.T. | 1-1/2 | | | 22,238 | 30,925 |
| | | 60 | 5430980 | 4430050 | 39 | 26 | D.T. | | | | 27,150 | 32,153 |
| | 72 | 78 | 5430990 | 4430060 | 39 | 26 | D.T. | | | | 27,150 | 32,153 |
| | | 96 | 5431000 | 4430070 | 39 | 26 | D.T. | | 3 | | 27,390 | 32,213 |
| | 76 | 60 | 5431240 | 4430080 | 39-1/4 | 26 | D.T. | | | | 30,793 | 33,064 |
| | | 78 | 5431250 | 4430090 | 39-1/4 | 26 | D.T. | | | | 30,793 | 33,064 |
| | 80 | 96 | 5431260 | 4430070 | 39-1/4 | 26 | D.T. | | | | 30,793 | 33,064 |
| | | 60 | 5431270 | 4430080 | 39-1/2 | 26 | D.T. | | | 4 | 33,166 | 33,657 |
| | 84 | 78 | 5431280 | 4430090 | 39-1/2 | 26 | D.T. | | | | 33,166 | 33,657 |
| | | 96 | 5431290 | 4430070 | 39-1/2 | 26 | D.T. | | | | 33,166 | 33,657 |

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
- (b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.
- (c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.
- (d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.
- (e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.
Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-6 Issued 3-20-87

**3 to 30
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | (e) Outrigger | HP for FPM (d) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|------------------|----------------|-----|-----|----------------|----------------------------|
| | | | | | | | | 80 | 140 | 180 | | |
| 25 | 25 | 60 | 5431300 | 4430120 | 27-1/8 | 26 | | 1-1/2 | 3 | 3 | 10,793 | 34,998 |
| | | 78 | 5431310 | 4430130 | 27-1/8 | 26 | | 1-1/2 | 3 | 3 | 10,793 | 34,998 |
| | 29 | 60 | 5431320 | 4430120 | 27-1/8 | 26 | | 1-1/2 | 3 | 3 | 11,725 | 35,231 |
| | | 78 | 5431330 | 4430130 | 27-1/8 | 26 | | 1-1/2 | 3 | 3 | 11,725 | 35,231 |
| | 33 | 60 | 5431340 | 4430120 | 27-3/8 | 26 | | 1-1/2 | 3 | 3 | 13,437 | 35,659 |
| | | 78 | 5431350 | 4430130 | 27-3/8 | 26 | | 1-1/2 | 3 | 3 | 13,437 | 35,659 |
| | 36 | 60 | 5431360 | 4430120 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 16,739 | 36,495 |
| | | 78 | 5431370 | 4430130 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 16,739 | 36,495 |
| | 41 | 60 | 5431380 | 4430120 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 18,477 | 36,930 |
| | | 78 | 5431390 | 4430130 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 18,477 | 36,930 |
| | 43 | 60 | 5431400 | 4430120 | 33-1/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 18,003 | 36,812 |
| | | 78 | 5431410 | 4430130 | 33-1/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 18,003 | 36,812 |
| | 46 | 60 | 5431420 | 4430120 | 36 | 26 | D.T. | 1-1/2 | 3 | 4 | 19,141 | 37,097 |
| | | 78 | 5431430 | 4430130 | 36 | 26 | D.T. | 1-1/2 | 3 | 4 | 19,141 | 37,097 |
| | 52 | 60 | 5431440 | 4430120 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 22,780 | 38,007 |
| | | 78 | 5431450 | 4430130 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 22,780 | 38,007 |
| | 56 | 60 | 5431460 | 4430120 | 39 | 26 | D.T. | 1-1/2 | 3 | 4 | 25,906 | 38,789 |
| | | 78 | 5431470 | 4430130 | 39 | 26 | D.T. | 1-1/2 | 3 | 4 | 25,906 | 38,789 |
| | 59 | 60 | 5431480 | 4430120 | 39-1/4 | 26 | D.T. | 1-1/2 | 3 | 4 | 31,363 | 40,153 |
| | | 78 | 5431490 | 4430130 | 39-1/4 | 26 | D.T. | 1-1/2 | 3 | 4 | 31,363 | 40,153 |
| 30 | 25 | 60 | 5431500 | 4430120 | 27-1/8 | 26 | | 1-1/2 | 3 | 4 | 10,793 | 40,748 |
| | | 78 | 5431510 | 4430130 | 27-1/8 | 26 | | 1-1/2 | 3 | 4 | 10,793 | 40,748 |
| | 30 | 60 | 5431520 | 4430120 | 27-3/8 | 26 | | 1-1/2 | 3 | 4 | 12,798 | 41,249 |
| | | 78 | 5431530 | 4430130 | 27-3/8 | 26 | | 1-1/2 | 3 | 4 | 12,798 | 41,249 |
| | 35 | 60 | 5431540 | 4430120 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 16,739 | 42,234 |
| | | 78 | 5431550 | 4430130 | 30-1/2 | 26 | | 1-1/2 | 3 | 4 | 16,739 | 42,234 |
| | 40 | 60 | 5431560 | 4430120 | 33-1/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 17,347 | 42,386 |
| | | 78 | 5431570 | 4430130 | 33-1/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 17,347 | 42,386 |
| | 43 | 60 | 5431580 | 4430120 | 36 | 26 | D.T. | 1-1/2 | 3 | 4 | 18,473 | 42,668 |
| | | 78 | 5431590 | 4430130 | 36 | 26 | D.T. | 1-1/2 | 3 | 4 | 18,473 | 42,668 |
| | 46 | 60 | 5431600 | 4430120 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 21,031 | 43,308 |
| | | 78 | 5431610 | 4430130 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 21,031 | 43,308 |
| | 49 | 60 | 5431620 | 4430120 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 22,074 | 43,569 |
| | | 78 | 5431630 | 4430130 | 38-5/8 | 26 | D.T. | 1-1/2 | 3 | 4 | 22,074 | 43,569 |
| | 54 | 60 | 5431640 | 4430120 | 39-1/8 | 26 | D.T. | 2 | 3 | 4 | 26,647 | 44,712 |
| | | 78 | 5431650 | 4430130 | 39-1/8 | 26 | D.T. | 2 | 3 | 4 | 26,647 | 44,712 |
| | 57 | 60 | 5431660 | 4430120 | 39-1/2 | 26 | D.T. | 2 | 3 | 5 | 30,433 | 45,659 |
| | | 78 | 5431670 | 4430130 | 39-1/2 | 26 | D.T. | 2 | 3 | 5 | 30,433 | 45,659 |

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.

(c) Max. ASCE Rail: 40#/yd. rail for Truck 4430010. 40#/yd. rail for Trucks 4430020 to 4430040. 80#/yd. for Trucks 4430050 to 4430130.

(d) Speeds: 70-125-160 for 3 to 10 ton 60' max. 80-140-180 for all other capacities and spans. HP is for each motor—two required per crane. Two speed motors are 1800-600 RPM.

(e) D.T. = Double Truss

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net load at the hook of any type of hoist. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin of strength to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAMS Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/800 of the span. Bridge beam shall be selected structural steel members provided with rails. Rails shall be securely fastened in place to maintain center distance. Provision shall be made to prevent creeping of the bridge rails by means of a positive stop at the ends of the rails. The bridge beam shall be braced to maintain squareness with the trucks. Bridge beam shall have adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical beam moment of inertia.

END TRUCKS The end truck frame shall be welded from structural shapes into a single unit as to prevent distortion and mismatch of gears under maximum rated load. End truck wheelbase shall be a minimum of 1/7 of the crane span. One wheel in each truck shall be geared and meshed with a pinion. The truck shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck member. A wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that the drop of the truck will be limited to one inch in case of axle or wheel failure. Attachment of end truck to bridge beam shall be bolted.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE Each end truck shall be provided with a helical gear motor reducer. The drive motor for each truck shall be fully enclosed, 30 minute duty rated Class B insulation in a NEMA frame and shall comply with NEMA performance specifications. A spring set, electrically released A.C. disc type brake shall be integrally mounted on each reducer in line with the motor. The motors shall be integral with fully enclosed oil splash lubricated gear reducers. The gear reduction shaft shall be supported by precision ball or roller bearings.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed motors or two speed motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electric Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



Material Handling Group

1110 East Princess Street, York, PA 17403
Telephone (717) 843-1523 Telex 84-0411
FAX (717) 846-5387

Downey, California

12140 Bellflower Blvd., Downey, CA 90241

Telephone (213) 862-8101 Telex 69-8196

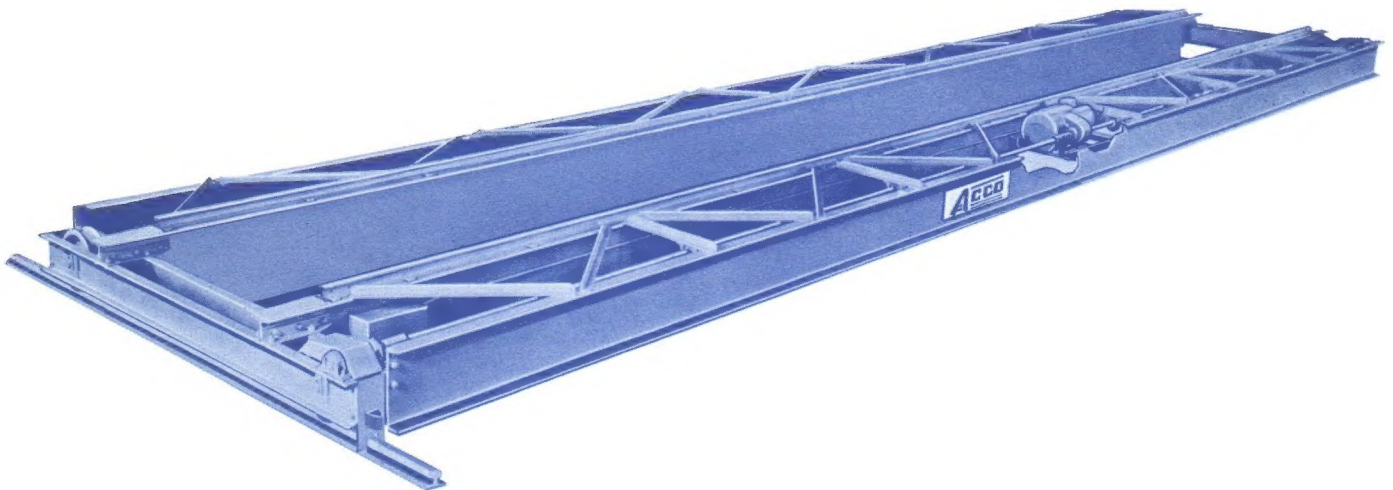
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WRIGHT® WORK-RATED®

**SERIES 544
TOP RUNNING DOUBLE GIRDER CRANE
MOTOR DRIVEN — CENTER DRIVE**

CAPACITIES 3 to 10 TONS SPANS to 60 FEET



The *Wright Work-rated* Series 544 top running double girder motor driven center drive crane is engineered for industrial service. The double bridge beam is best where maximum height of lift is important.

The Series 544 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 544 crane is offered in capacities from three through ten tons, with spans up to 60 feet, and with a standard bridge travel speed of 75 FPM single speed. 125 and 175 FPM are optional.

Bridge consists of two heavy section beams rigidly bolted to end truck for in-square operation. A heavy structural channel outrigger member, running full length of bridge, is braced to the bridge on crane-drive side to provide lateral rigidity and support to the drive unit. Spans over 30 feet are provided with a heavy structural channel outrigger member braced to the bridge idler beam to provide additional lateral rigidity. Spans greater than 50 feet are provided with latticed truss outriggers braced to both beams.

The end trucks are of welded steel channel construction, equipped with

diaphragms, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

The *Wright* enclosed center mounted standard 75 FPM single speed crane drive unit complete with ACM control and brake provides smooth bridge motion and excellent load control. The Acco ACM is an all-solid state acceleration control module designed exclusively for crane and trolley traverse motions. The equal length squaring shaft is geared to wheels on both end trucks to provide uniform travel at both sides of the crane.

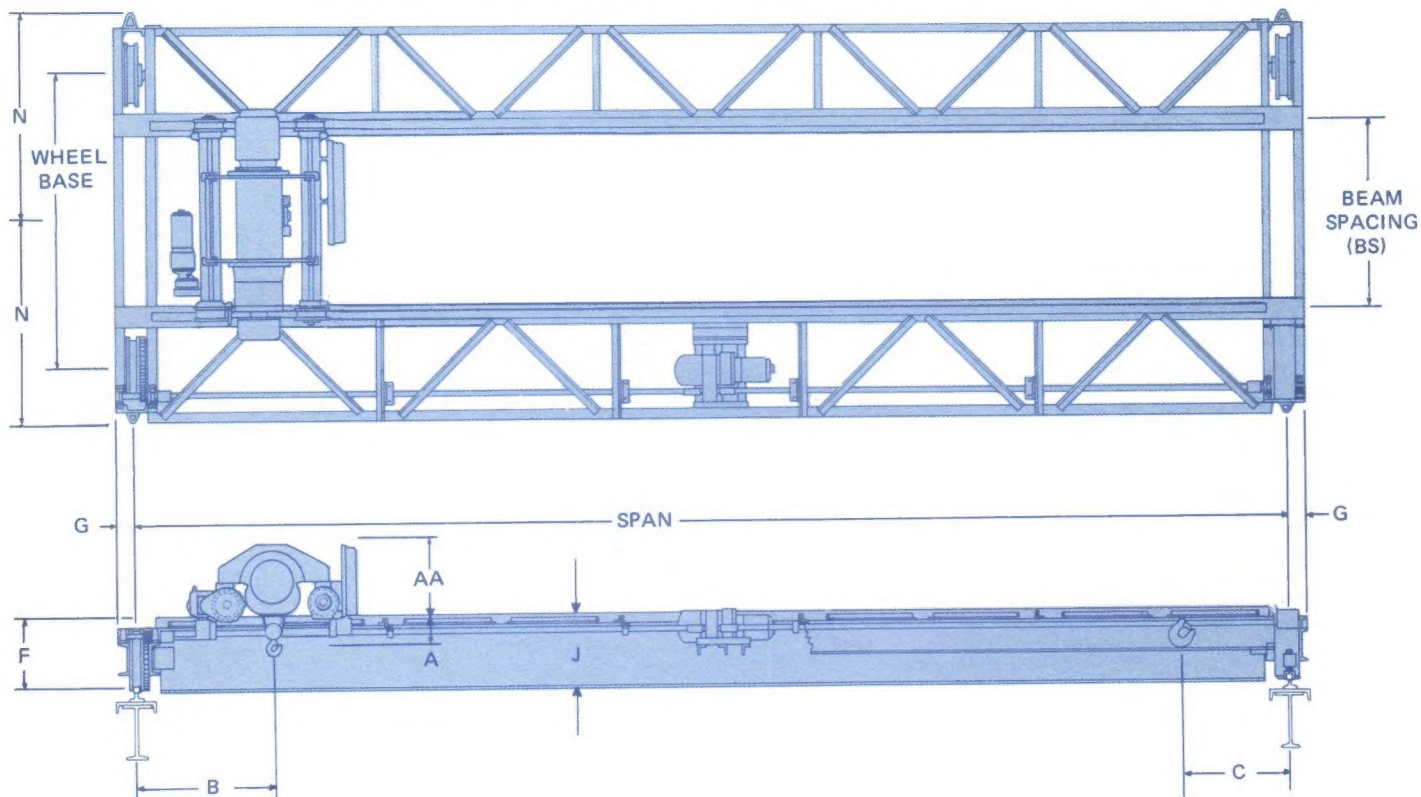
Standard electrical equipment includes NEMA type 3R enclosure main-line magnetic contactor, manually operated fuseable disconnect switch without lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Series 544 cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.

**3 to 10
TONS**

WORK-RATED® SERIES 544 TOP RUNNING DOUBLE GIRDER CRANE
MOTOR DRIVEN—CENTER DRIVE

54-10



A dimension represents hoist headroom. Refer to *Work-rated* top running trolley-hoist data pages, section 34.

B and C dimension represents hoist end approach. Refer to *Work-rated* top running trolley-hoist data pages and add 7" to bumper dimension measured from centerline of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated* top running trolley-hoist data pages.

Dimensions in inches unless otherwise specified.

Cranes up to and including 30'-0" span are furnished with single outrigger on drive side.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located. (*Acco* standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.



**WORK-RATED® SERIES 544 TOP RUNNING DOUBLE GIRDER
MOTOR DRIVEN—CENTER DRIVE CRANE**

54-11 Issued 3-20-87

**3 to 10
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | Outrigger (d) | HP for FPM | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|---------------|------------|-------|-------|----------------|-------------------------|
| | | | | | | | 75 | 125 | 175 | | |
| 3 | 25 | 60 | 5440010 | 4440010 | 17-3/4 | Channel | 1/2 | 1 | 1-1/2 | 4510 | 5808 |
| | 30 | | 5440020 | 4440010 | 20-3/4 | Channel | 1/2 | 1 | 1-1/2 | 5880 | 6155 |
| | 35 | | 5440030 | 4440010 | 20-3/4 | Channel | 1/2 | 1 | 1-1/2 | 7600 | 6585 |
| | 40 | | 5440040 | 4440010 | 20-3/4 | Channel | 1/2 | 1 | 2 | 8460 | 6800 |
| | 50 | | 5440050 | 4440010 | 22-3/4 | Channel | 1 | 1-1/2 | 2 | 13885 | 8157 |
| | 55 | | 5440060 | 4440040 | 29-3/4 | Double Truss | 1 | 2 | 3 | 15800 | 8635 |
| | 60 | | 5440070 | 4440040 | 32-3/4 | Double Truss | 1 | 2 | 3 | 18030 | 9193 |
| 5 | 25 | 60 | 5440080 | 4440010 | 20-3/4 | Channel | 1 | 1-1/2 | 2 | 5090 | 8260 |
| | 30 | 60 | 5440100 | 4440010 | 20-3/4 | Channel | 1 | 1-1/2 | 2 | 5809 | 8438 |
| | 40 | 60 | 5440120 | 4440010 | 22-3/4 | Channel | 1 | 1-1/2 | 2 | 9500 | 9360 |
| | 50 | 60 | 5440140 | 4440010 | 26-3/4 | Channel | 1 | 2 | 3 | 15375 | 10829 |
| | 55 | 60 | 5440160 | 4440040 | 29-3/4 | Double Truss | 1 | 2 | 3 | 15800 | 10935 |
| | 60 | 60 | 5440180 | 4440040 | 32-3/4 | Double Truss | 1 | 2 | 3 | 18030 | 11493 |
| 7-1/2 | 25 | 60 | 5440200 | 4440010 | 20-3/4 | Channel | 1 | 1-1/2 | 3 | 5935 | 11799 |
| | | 78 | 5440210 | 4440030 | | | | | | | |
| | 35 | 60 | 5440220 | 4440010 | 22-3/4 | Channel | 1 | 2 | 3 | 9250 | 12608 |
| | | 78 | 5440230 | 4440030 | | | | | | | |
| | 40 | 60 | 5440240 | 4440010 | 26-3/4 | Channel | 1 | 2 | 3 | 11250 | 13108 |
| | | 78 | 5440250 | 4440030 | | | | | | | |
| | 45 | 60 | 5440260 | 4440010 | 26-3/4 | Channel | 1 | 2 | 3 | 14750 | 13983 |
| | | 78 | 5440270 | 4440030 | | | | | | | |
| | 50 | 60 | 5440280 | 4440020 | 29-3/4 | Channel | 1 | 2 | 3 | 15700 | 14220 |
| | | 78 | 5440290 | 4440030 | | | | | | | |
| 10 | 55 | 60 | 5440300 | 4440050 | 32-3/4 | Double Truss | 1-1/2 | 3 | 5 | 18900 | 15045 |
| | | 78 | 5440310 | 4440060 | | | | | | | |
| | 60 | 60 | 5440320 | 4440050 | 35-3/4 | Double Truss | 1-1/2 | 3 | 5 | 21710 | 15748 |
| | | 78 | 5440330 | 4440060 | | | | | | | |
| | 25 | 60 | 5440340 | 4440020 | 20-3/4 | Channel | 1 | 2 | 3 | 6125 | 14702 |
| | | 78 | 5440350 | 4440030 | | | | | | | |
| | 35 | 60 | 5440360 | 4440020 | 22-3/4 | Channel | 1 | 2 | 3 | 9600 | 15570 |
| | | 78 | 5440370 | 4440030 | | | | | | | |
| 10 | 40 | 60 | 5440380 | 4440020 | 26-3/4 | Channel | 1 | 2 | 5 | 11800 | 16120 |
| | | 78 | 5440390 | 4440030 | | | | | | | |
| | 45 | 60 | 5440400 | 4440020 | 26-3/4 | Channel | 1-1/2 | 3 | 5 | 14750 | 16808 |
| | | 78 | 5440410 | 4440030 | | | | | | | |
| | 50 | 60 | 5440420 | 4440020 | 29-3/4 | Channel | 1-1/2 | 3 | 5 | 16900 | 17395 |
| | | 78 | 5440430 | 4440030 | | | | | | | |
| | 55 | 60 | 5440440 | 4440050 | 32-3/4 | Double Truss | 1-1/2 | 3 | 5 | 18900 | 17920 |
| | | 78 | 5440450 | 4440060 | | | | | | | |
| 10 | 60 | 60 | 5440460 | 4440050 | 35-3/4 | Double Truss | 1-1/2 | 3 | 5 | 21710 | 18623 |
| | | 78 | 5440470 | 4440060 | | | | | | | |

| End Truck (c) | Wheel Base | Beam Spacing (b) | Wheel Tread Dia. | F | G | N |
|------------------|---------------|---------------------|---------------------|---------|--------|--------|
| 4440010 | 7'-8" | 60" | 12" | 17-3/8" | 4-3/4" | 5'-1" |
| 4440020 | 7'-8" | 60" | 18" | 21-3/8" | 5-1/2" | 5'-4" |
| 4440030 | 9'-2" | 78" | 18" | 21-3/8" | 5-1/2" | 6'-2" |
| 4440040 | 9'-2" | 60" | 12" | 19-3/4" | 5-1/8" | 6'-5" |
| 4440050 | 9'-2" | 60" | 18" | 23-3/4" | 5-3/4" | 6'-10" |
| 4440060 | 9'-2" | 78" | 18" | 23-3/4" | 5-3/4" | 6'-10" |

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
- (b) Beam spacing is wheel gauge of top running trolley hoist in Section 34.
- (c) Max. ASCE Rail = 60#/Yd.
- (d) Cranes up to and including 30'-0" spans are furnished with single outrigger on drive side.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk. Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAMS Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/800 of the span. Bridge beam shall be selected structural steel members provided with ASCE rails. Rails shall be securely fastened in place to maintain center distance. Provision shall be made to prevent creeping of the bridge rails by means of a positive stop at the ends of the rails. Crane shall be reinforced with outrigger to provide squareness with the end truck, adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical beam moment of inertia. Outrigger shall furnish support for squaring shaft and the crane drive motor and gear reducer assembly.

END TRUCKS End trucks shall be built of structural shapes and welded to a stable assembly of sufficient strength to comply with general strength requirements previously stated. They shall provide proper wheel and bearing alignment for crane wheels and drives during the life of the crane. End truck wheelbase shall be a minimum of 1/7 of the crane span. One wheel in each truck shall be geared and meshed with a pinion mounted on the crane squaring shaft. The crane end trucks shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck members. A wheel and wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that, in case of a wheel axle or wheel failure, the drop of the load will be limited to one inch. Attachment of end trucks to bridge beams shall be bolted.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium-base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE The crane drive motor shall be totally enclosed 30 minute duty cycle rated, with class B insulation complying with NEMA performance specifications. The motor shall be integral with a fully enclosed oil splash lubricated gear reduction. The motor and the gear reduction shafts shall be supported by permanently lubricated precision ball or roller bearings. The drive shaft shall provide synchronous drive from the gear reduction to both end trucks. The crane drive shall include an integrally mounted spring set electrically released D.C. rectified disc brake.

DRIVE SHAFT The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane drive shaft shall be steel and designed to limit torsional shaft stress to 6,000 psi. Maximum torsional twist angle in the drive shaft shall not exceed one degree of the wheel rotation under maximum rated load, regardless of load location.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single-speed or multi-speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push-button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed and two speed motors to 5 HP shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electrical Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

**Material Handling Group**

1110 East Princess Street, York, PA 17403
Telephone (717) 843-1523 Telex 84-0411
FAX (717) 846-5387

Downey, California

12140 Bellflower Blvd., Downey, CA 90241

Telephone (213) 862-8101

Telex 69-8196

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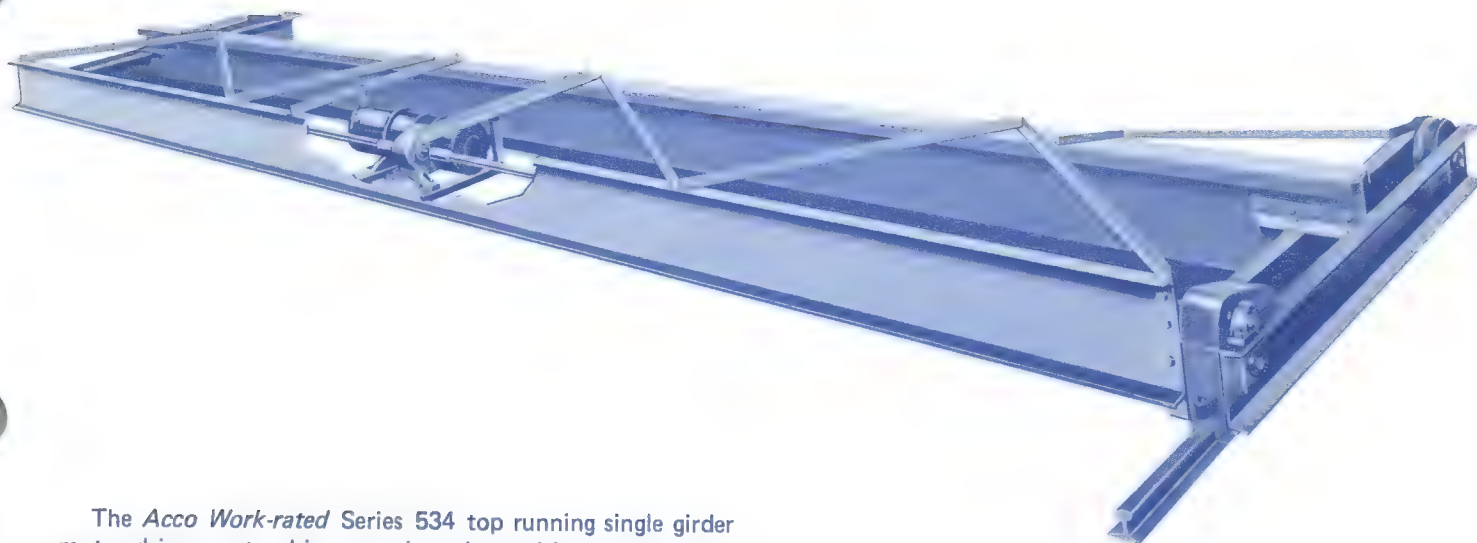
53-13

WORK-RATED®

SERIES 534

**TOP RUNNING SINGLE GIRDER CRANE
MOTOR DRIVEN—CENTER DRIVE**

CAPACITIES 1 to 10 TONS SPANS to 50 FEET



The *Acco Work-rated* Series 534 top running single girder motor driven center drive crane is engineered for normal industrial service. The notched bridge beam design is best where overhead clearance and height of lift are important.

The Series 534 top running single girder crane, when combined with a *Work-rated®* or *Wright American* electric trolley hoist, is an excellent installation where it is practical to support crane runway rails from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 534 crane is offered in capacities from one through ten tons, with spans up to 50 feet, and with a standard bridge travel speed of 75 FPM, single speed. Optional 125 and 175 FPM single speed with ACM or 75/25, 125/42 and 175/58 two speed with ACM is available. Five step variable speed is also available at 75, 125 or 175 FPM.

Bridge consists of heavy section beam, rigidly bolted to the end trucks for in-square operation. Longer spans are reinforced by capping channel welded to the bridge beam. A heavy structural channel outrigger member, running full length of bridge, is braced to the bridge beam on the crane drive side to provide lateral rigidity and support to the drive unit.

The end trucks are of welded-steel channel construction equipped with diaphragms, jig-welded and bored to provide alignment of wheels, axles and drive shaft. Wheel and gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing rubber bumpers are included for the crane's protection.

The end truck wheels are hardened steel double flanged. All end truck wheels are equipped with prelubricated, tapered roller bearings, two to each wheel.

The Series 534 enclosed center mounted standard 75 FPM single speed crane drive unit complete with ACM control and D.C. rectified disc brake provides smooth bridge motion and excellent load control. The *Acco* ACM is an all-solid state acceleration control module designed exclusively for crane and trolley traverse motions. The equal length squaring shaft is geared to wheels on both end trucks to provide uniform travel at both sides of the crane.

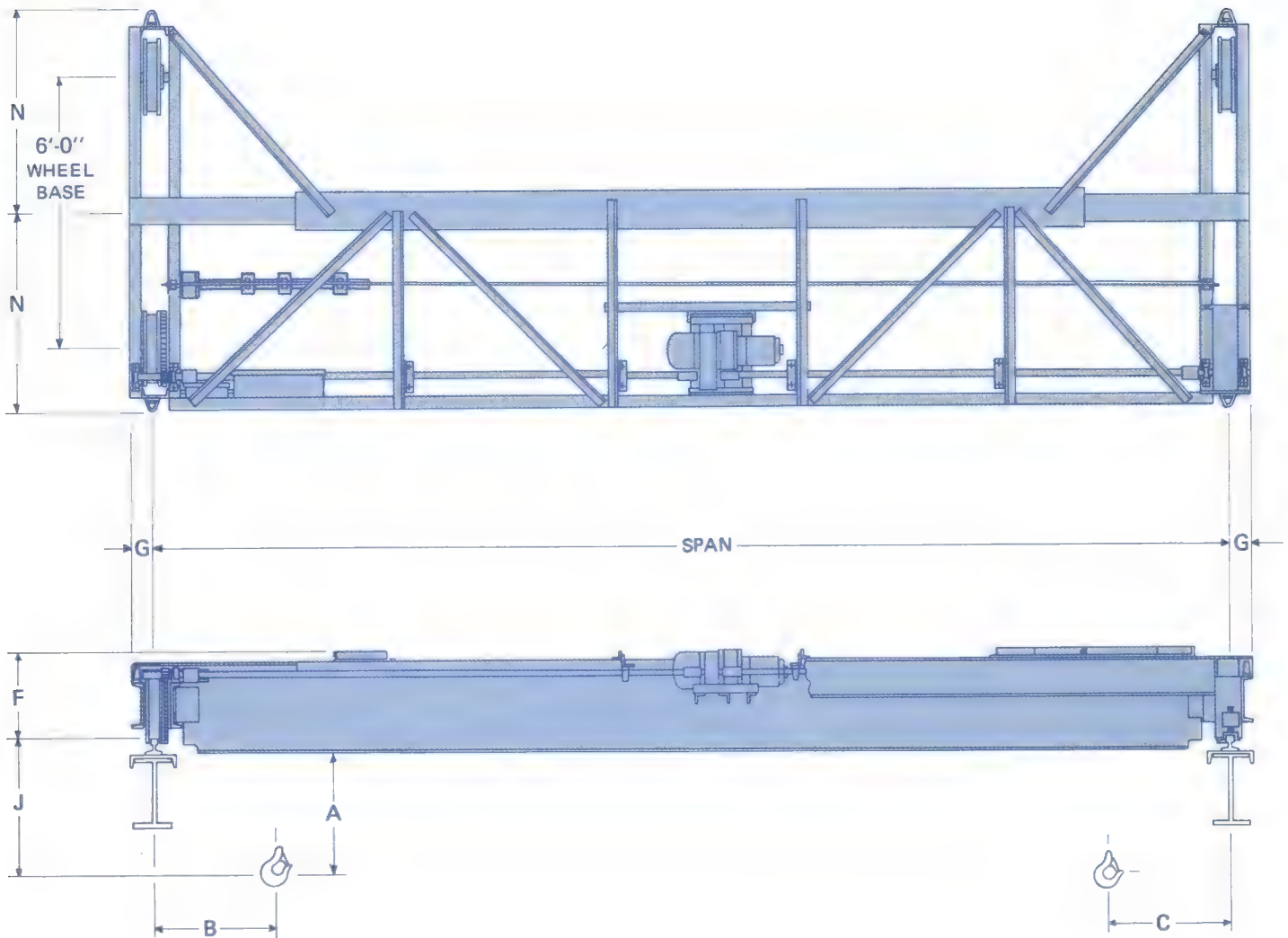
Standard electrical equipment includes NEMA type 3R enclosure, mainline magnetic contactor, manually operated fuseable disconnect switch with lockout provision, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and flat wire festoon tagline bridge electrification. Optional pendant or traveling push-button from the bridge is available.

Series 534 cranes are custom-designed, using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.

**1 to 10
TONS**

**WORK-RATED® SERIES 534 TOP RUNNING SINGLE
GIRDER CRANE MOTOR DRIVEN—CENTER DRIVE**

53-14



A dimension represents hoist headroom. Refer to *Wright-way®* or *Work-rated* hoist data pages.

B and C dimension represents hoist end approach. Refer to dimension on *Wright-way* or *Work-rated* hoist data pages and add 15" for 'B' dimension. For all standard headroom hoists add 10" for 'C' dimension. For all close headroom hoists add 13-1/2" for 'C' dimension.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors. Left-hand runway is standard location of runway conductors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, and beam size. State from which runway beam mainline conductors are located (*Acco* standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired as listed in modifications and accessories section.



**WORK-RATED® SERIES 534 TOP RUNNING
SINGLE GIRDER CRANE MOTOR DRIVEN — CENTER DRIVE**

53-15 Issued 8-31-87

**1 to 10
TONS**

| Cap. (Tons) | Max. Span (Ft.) | Crane Product Number | End Truck Product Number | Bridge Beam | Capping Channel | Outrigger Channel | J | HP for FPM | | | Weight (Lbs.) | Wheel Load (Lbs.)(a) |
|----------------|-----------------------|----------------------------|--------------------------------|----------------|--------------------|----------------------|----------|------------|-------|-------|------------------|----------------------------|
| | | | | | | | | 75 | 125 | 175 | | |
| 1 | 20 | 5340010 | 4340010 | 12x31.8 # | — | 9x13.4 # | A— 7/8 | 1/2 | 1/2 | 1 | 2165 | 2020 |
| | 25 | 5340020 | 4340010 | 12x31.8 # | — | 9x13.4 # | A— 7/8 | 1/2 | 1/2 | 1 | 2540 | 2114 |
| | 30 | 5340030 | 4340010 | 15x42.9 # | — | 10x15.3 # | A+ 2-1/8 | 1/2 | 1/2 | 1 | 3230 | 2287 |
| | 40 | 5340040 | 4340010 | 15x42.9 # | 8x11.5 # | 12x20.7 # | A+ 2-1/8 | 1/2 | 1/2 | 1 | 4540 | 2614 |
| | 50 | 5340050 | 4340010 | 18x54.7 # | 9x13.4 # | 15x33.9 # | A+ 5-1/8 | 1/2 | 1 | 1 | 6875 | 3199 |
| 2 | 20 | 5340060 | 4340010 | 12x31.8 # | — | 9x13.4 # | A— 7/8 | 1/2 | 1/2 | 1 | 2195 | 3178 |
| | 25 | 5340070 | 4340010 | 15x42.9 # | — | 9x13.4 # | A+ 2-1/8 | 1/2 | 1/2 | 1 | 2836 | 3338 |
| | 30 | 5340080 | 4340010 | 18x54.7 # | — | 10x15.3 # | A+ 5-1/8 | 1/2 | 1/2 | 1 | 3590 | 3527 |
| | 35 | 5340090 | 4340010 | 15x42.9 # | 9x13.4 # | 12x20.7 # | A+ 2-1/8 | 1/2 | 1 | 1 | 4215 | 3683 |
| | 40 | 5340100 | 4340010 | 18x54.7 # | 9x13.4 # | 12x20.7 # | A+ 5-1/8 | 1/2 | 1 | 1 | 5095 | 3903 |
| | 45 | 5340110 | 4340010 | 18x54.7 # | 10x15.3 # | 15x33.9 # | A+ 5-1/8 | 1/2 | 1 | 1 | 6331 | 4212 |
| 50 | 5340120 | 4340010 | 20x66 # | 10x15.3 # | 15x33.9 # | A+ 7-1/8 | 1/2 | 1 | 1-1/2 | 7420 | 4484 | |
| 3 | 20 | 5340130 | 4340010 | 15x42.9 # | — | 9x13.4 # | A+ 2-1/8 | 1/2 | 1 | 1 | 2430 | 4836 |
| | 25 | 5340140 | 4340010 | 18x54.7 # | — | 9x13.4 # | A+ 5-1/8 | 1/2 | 1 | 1 | 3135 | 5012 |
| | 30 | 5340150 | 4340010 | 15x42.9 # | 8x11.5 # | 10x15.3 # | A+ 2-1/8 | 1/2 | 1 | 1 | 3575 | 5122 |
| | 35 | 5340160 | 4340010 | 18x54.7 # | 8x11.5 # | 12x20.7 # | A+ 5-1/8 | 1/2 | 1 | 1-1/2 | 4705 | 5404 |
| | 40 | 5340170 | 4340010 | 18x54.7 # | 9x13.4 # | 12x20.7 # | A+ 5-1/8 | 1/2 | 1 | 1-1/2 | 5445 | 5589 |
| | 45 | 5340180 | 4340010 | 20x66 # | 10x15.3 # | 15x33.9 # | A+ 7-1/8 | 1/2 | 1 | 1-1/2 | 7190 | 6026 |
| 50 | 5340190 | 4340010 | 24x80 # | 10x15.3 # | 15x33.9 # | A+ 11-1/8 | 1/2 | 1 | 1-1/2 | 8540 | 6363 | |
| 5 & 6 | 20 | 5340200 | 4340020 | 18x54.7 # | — | 9x13.4 # | A+ 2-1/4 | 1/2 | 1 | 1-1/2 | 2990 | 8676 |
| | 25 | 5340210 | 4340020 | 15x42.9 # | 10x15.3 # | 10x15.3 # | A— 3/4 | 1/2 | 1 | 2 | 3455 | 8792 |
| | 30 | 5340220 | 4340020 | 18x54.7 # | 8x11.5 # | 10x15.3 # | A+ 2-1/4 | 1/2 | 1 | 2 | 4200 | 8978 |
| | 35 | 5340230 | 4340020 | 20x66 # | 10x15.3 # | 12x20.7 # | A+ 4-1/4 | 1 | 1 | 2 | 5430 | 9286 |
| | 40 | 5340240 | 4340020 | 24x80 # | 10x15.3 # | 12x20.7 # | A+ 8-1/4 | 1 | 1-1/2 | 2 | 6555 | 9568 |
| | 45 | 5340250 | 4340020 | 24x80 # | 10x15.3 # | 15x33.9 # | A+ 8-1/4 | 1 | 1-1/2 | 2 | 7850 | 9891 |
| 50 | 5340260 | 4340020 | 24x80 # | 12x20.7 # | 15x33.9 # | A+ 8-1/4 | 1 | 1-1/2 | 2 | 8810 | 10131 | |
| 7-1/2 | 20 | 5340270 | 4340020 | 20x66 # | — | 10x15.3 # | A+ 4-1/4 | 1 | 1-1/2 | 2 | 4030 | 11138 |
| | 25 | 5340280 | 4340030 | 18x54.7 # | 8x11.5 # | 10x15.3 # | A— 2 | 1 | 1-1/2 | 2 | 4575 | 11207 |
| | 30 | 5340290 | 4340030 | 20x66 # | 10x15.3 # | 10x15.3 # | A— 0 | 1 | 1-1/2 | 3 | 5590 | 11461 |
| | 40 | 5340300 | 4340030 | 24x80 # | 10x15.3 # | 12x20.7 # | A+ 4 | 1 | 1-1/2 | 3 | 7420 | 11918 |
| | 45 | 5340310 | 4340030 | 24x80 # | 12x20.7 # | 15x33.9 # | A+ 4 | 1 | 2 | 3 | 9035 | 12322 |
| | 50 | 5340320 | 4340030 | 24x106 # | 15x33.9 # | 15x33.9 # | A+ 4-1/2 | 1 | 2 | 3 | 11730 | 12996 |
| 10 | 20 | 5340330 | 4340030 | 24x80 # | — | 10x15.3 # | A+ 4 | 1 | 2 | 3 | 4430 | 14046 |
| | 25 | 5340340 | 4340030 | 20x66 # | 10x15.3 # | 10x15.3 # | A+ 0 | 1 | 2 | 3 | 4950 | 14178 |
| | 30 | 5340350 | 4340030 | 24x80 # | 10x15.3 # | 10x15.3 # | A+ 4 | 1 | 2 | 3 | 6049 | 14450 |
| | 35 | 5340360 | 4340030 | 24x80 # | 10x15.3 # | 12x20.7 # | A+ 4 | 1 | 2 | 3 | 6815 | 14642 |
| | 40 | 5340370 | 4340030 | 24x80 # | 12x20.7 # | 12x20.7 # | A+ 4 | 1 | 2 | 3 | 7696 | 14862 |
| | 45 | 5340380 | 4340030 | 24x106 # | 12x20.7 # | 15x33.9 # | A+ 4-1/2 | 1 | 2 | 5 | 10830 | 15645 |
| 50 | 5340390 | 4340030 | 27x102 # | 15x33.9 # | 15x33.9 # | A+ 7-3/4 | 1 | 2 | 5 | 11540 | 15823 | |

| End Truck (c) | Wheel Tread Diameter | F(b) | | G | N |
|------------------|----------------------------|------------------|------------------|-------|-----------|
| | | Drive Unit #1 | Drive Unit #2 | | |
| 4340010 | 10 | 16-1/2 | — | 4-3/4 | 4'-1-1/2" |
| 4340020 | 12 | 18-5/8 | 19-1/2 | 5-1/8 | 4'-1" |
| 4340030 | 18 | 22-7/8 | 23-3/4 | 5-3/4 | 4'-5" |

(a) Wheel load includes allowance for 15% impact with a maximum hoist speed of 30 FPM. Standard industrial service. Refer to Acco structural beam guide for other requirements.

(b) #1 Drive Unit is 1/2 - 2 HP #2 Drive Unit is 3 or 5 HP.

(c) Max. ASCE Rail = 60#/Yd.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAM Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes, constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel member and shall provide level and straight tread surfaces for the hoist trolleys. Crane shall be reinforced with outrigger to provide squareness with the end truck, adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical moment of inertia. Outrigger shall furnish support for squaring shaft and the crane drive motor and gear reducer assembly.

END TRUCKS End trucks shall be built of structural shapes and welded to a stable assembly to comply with general strength requirements previously stated. They shall provide proper wheel and bearing alignment for crane wheels and drives during the life of the crane. End truck wheelbase shall be a minimum of 1/8 of the crane span. One wheel in each truck shall be geared and meshed with a pinion mounted on the crane squaring shaft. The crane end trucks shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck members. A wheel and wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that, in case of a wheel axle or wheel failure, the drop of the truck will be limited to one inch. Attachment of end trucks to bridge beams shall be with fitted bolts which will insure alignment in assembly and convenient erection.

CRANE WHEELS Crane wheels shall be double-flange alloy steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with sodium-base grease and provided with a suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. Wheel treads shall be smooth, true and uniform within .010 inch tread diameter on all wheels.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user. The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices. The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE The crane drive motor shall be fully enclosed 30 minute duty cycle rated, with class B insulation complying with NEMA performance specifications. The motor shall be integral with a fully enclosed oil splash lubricated gear reduction. The motor and the gear reduction shafts shall be supported by permanently lubricated precision ball or roller bearings. The drive shaft shall provide synchronous drive from the gear reduction to both end trucks. The crane drive shall include an integrally mounted spring set electrically released D.C. rectified disc brake.

DRIVE SHAFT The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane drive shaft shall be steel designed to limit torsional shaft stress to 6,000 psi. Maximum torsional twist angle in the drive shaft, shall not exceed one degree of the wheel rotation under maximum rated load regardless of load location.

BEARING LIFE All bearings in the crane wheels, those supporting the squaring shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

GEARING All gears shall be cut from solid blanks with 20 degree pressure angle involute shape for high strength and shall comply with AGMA specifications for load ratings. All gears operating at higher than 200 FPM pitchline speed shall be fully enclosed in oil tight housings and lubricated by splash principle.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed required. Bridge control shall include a mainline contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA type 3R enclosure actuated from a pendant push button station from either the trolley hoist or the bridge as determined by the requirements. Single speed or two speed bridge motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Fla. wire festoon tagline bridge conductor shall be provided with the crane to provide fully insulated bridge electrification. All other wiring of the crane shall be in accordance with National Electrical Code.

PAINTING The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



Acco Chain & Lifting Products Division

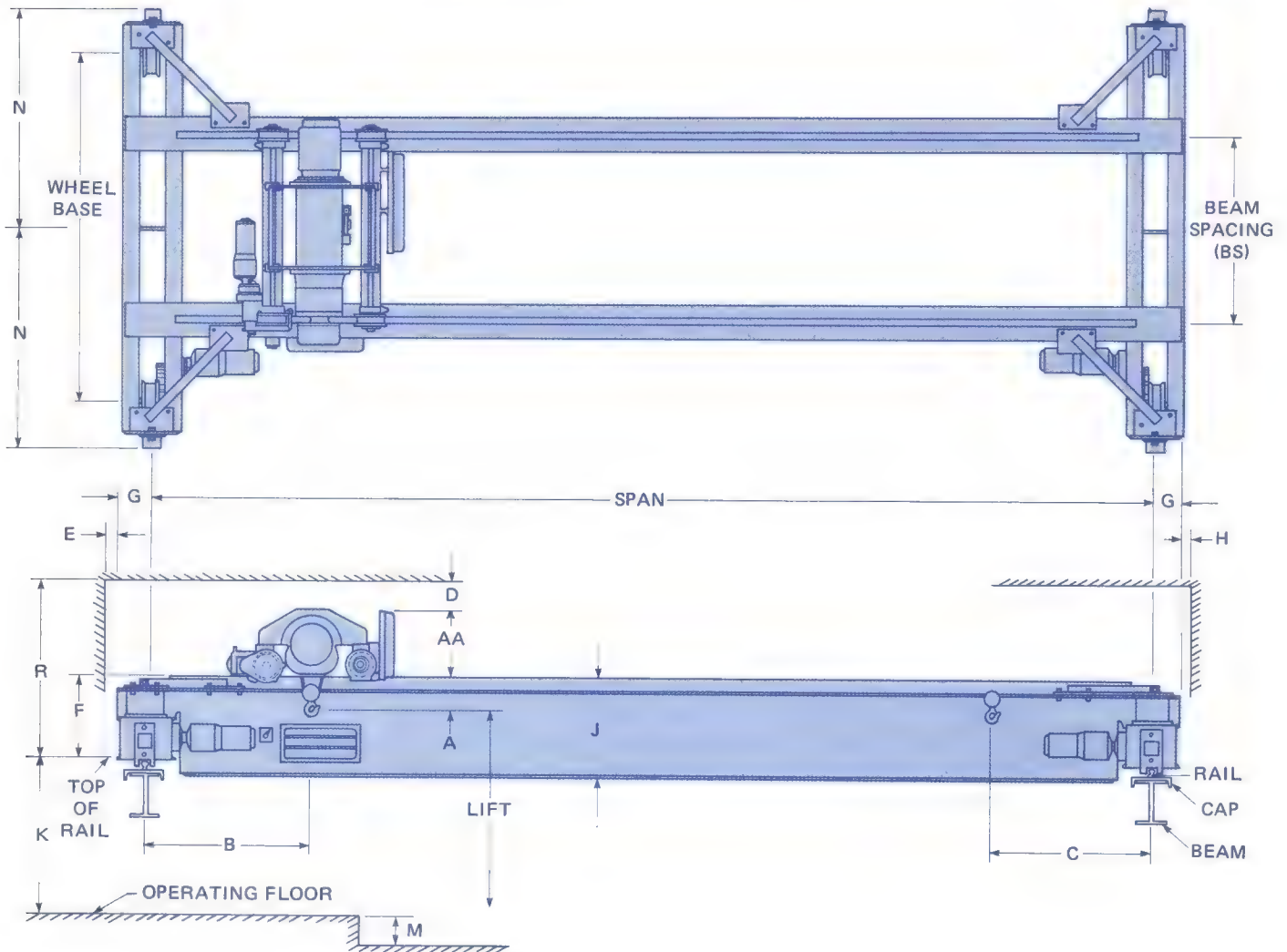
A member of the Acco Material Handling Group

76 Acco Drive, P.O. Box 792, York, PA 17405
Telephone 717 741-4863
FAX 717 741-4956 Telex 84-0412



**WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE**

54-17
Issued 10-30-87



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires
2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

DATE _____ SIGNATURE _____

CRANE PROD. NO. _____

CAPACITY _____

SPAN _____

LIFT _____

HOIST PROD. NO. _____

RUNWAY: _____

BEAM _____

CAP. CH. _____

RAIL _____

WHEEL LOADING _____

POWER SUPPLY _____

A _____
AA _____
B _____
BS _____
C _____
D _____
E _____
F _____
G _____
H _____
J _____
K _____
M _____
N _____
R _____
WB _____

WARNING Equipment described herein is not
designed for, and should not be used for, lifting,
supporting or transporting humans.

Failure to comply with any one of the limita-
tions noted herein can result in serious bodily
injury and/or property damage.



Acco Products Division

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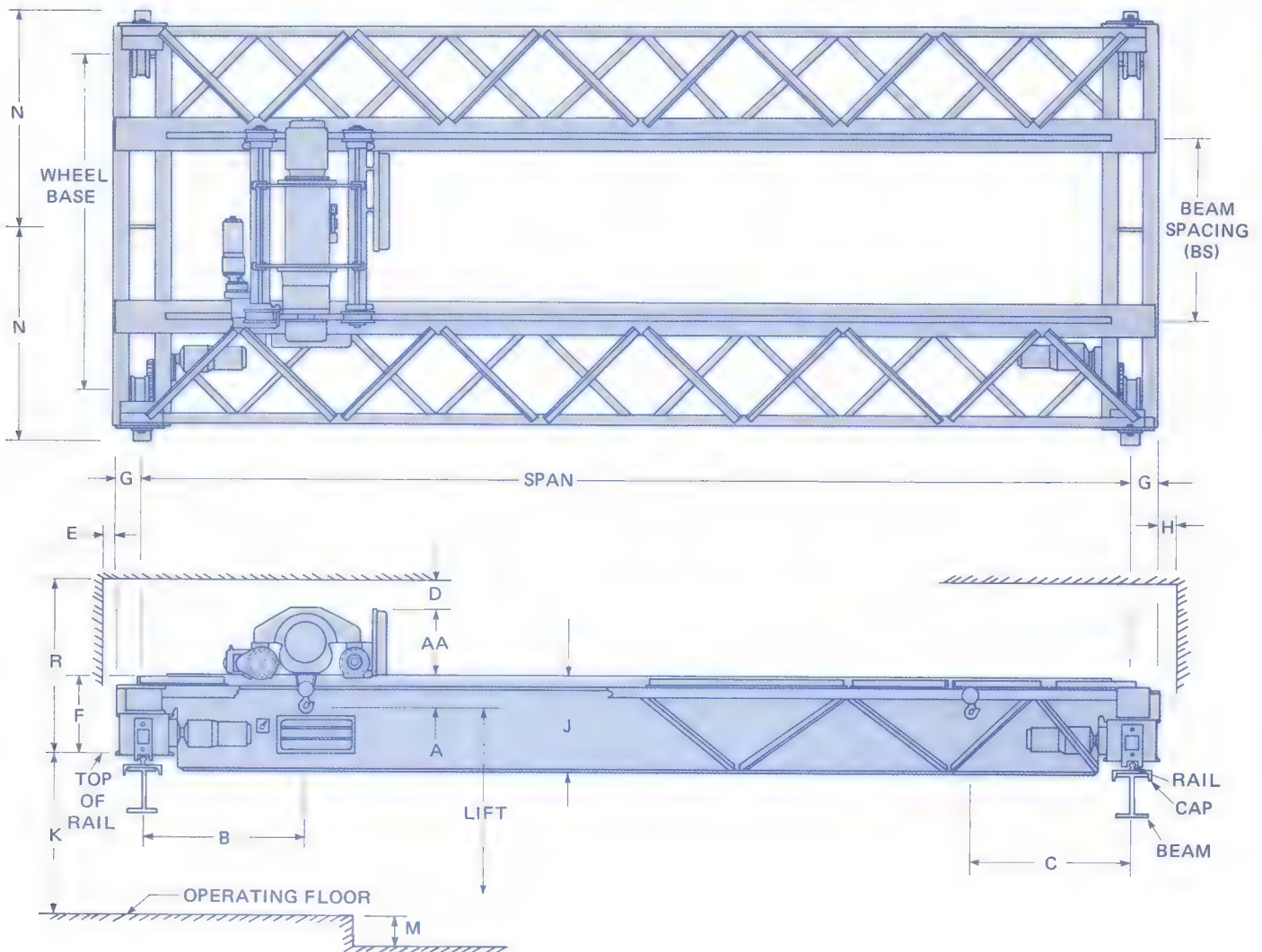
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WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE - TRUSS OUTRIGGERS

54-18
Issued 10-30-87



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires
2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

DATE _____ SIGNATURE _____

CRANE PROD. NO. _____

CAPACITY _____

SPAN _____

LIFT _____

HOIST PROD. NO. _____

RUNWAY: _____

BEAM _____

CAP. CH. _____

RAIL _____

WHEEL LOADING _____

POWER SUPPLY _____

A _____

AA _____

B _____

BS _____

C _____

D _____

E _____

F _____

G _____

H _____

J _____

K _____

M _____

N _____

R _____

WB _____



Acco Products Division

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Telephone 717 843-1523
FAX 717 846-5387 Telex 84-0411

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designed for, and should not be used for, lifting,
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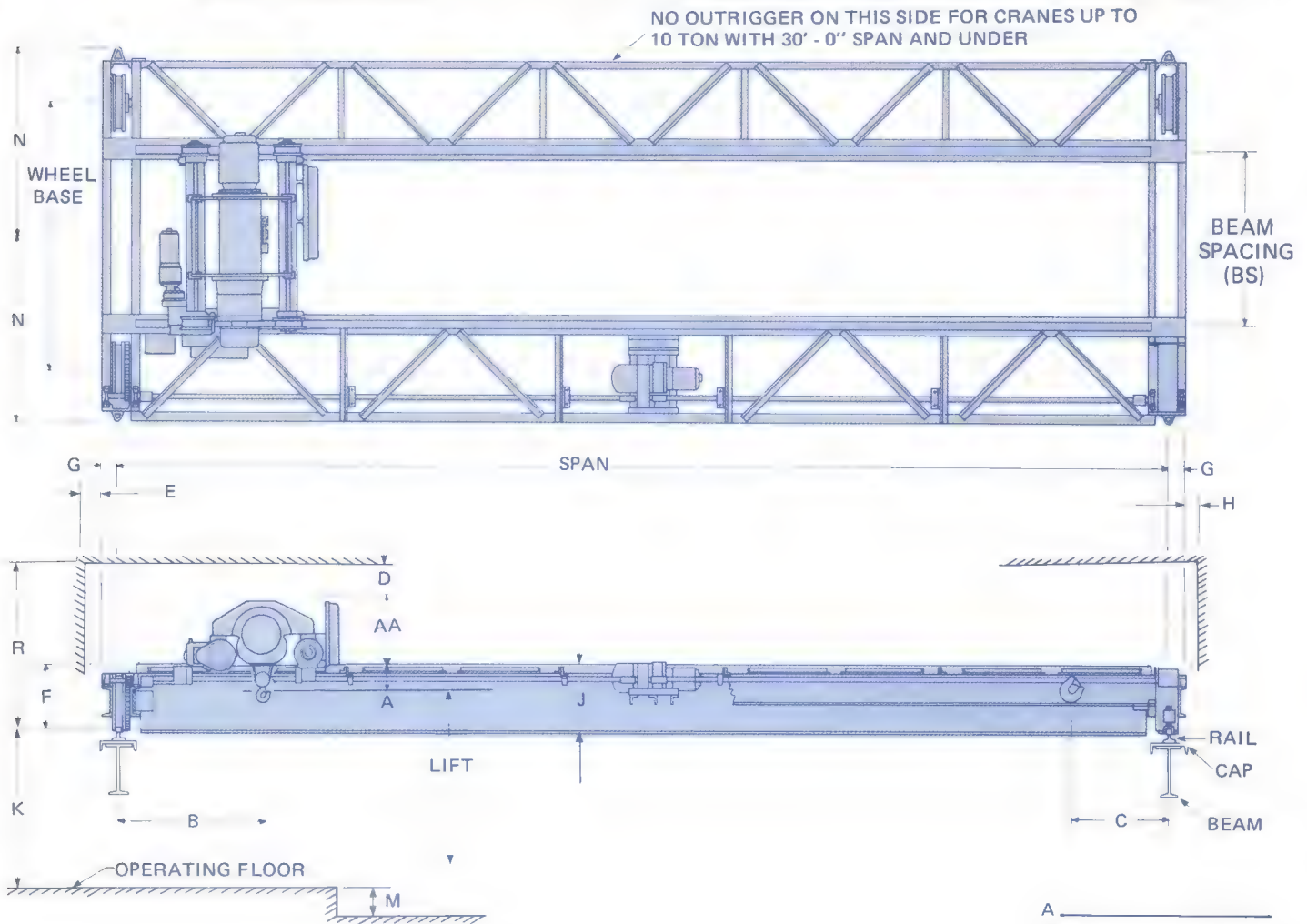
Failure to comply with any one of the limita-
tions noted herein can result in serious bodily
injury and/or property damage.

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WORK-RATED® SERIES 544 TOP RUNNING DOUBLE GIRDER
MOTOR DRIVEN—CENTER DRIVE CRANE

54-19
Issued 10-30-87



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER: _____

CUST. ORDER NO. _____

ACCO QUOTE NO. _____

ACCO JOB NO. _____

DATE _____

CUSTOMER APPROVAL _____

CRANE PROD. NO. _____

CAPACITY _____

SPAN _____

LIFT _____

HOIST PROD. NO. _____

RUNWAY: _____

BEAM _____

CAP. CH. _____

RAIL _____

WHEEL LOADING _____

POWER SUPPLY _____

A _____
AA _____
B _____
BS _____
C _____
D _____
E _____
F _____
G _____
H _____
J _____
K _____
M _____
N _____
R _____
WB _____

DATE _____ SIGNATURE _____



Acco Products Division

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Telephone 717 843-1523
FAX 717 846-5387 Telex 84-0411

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

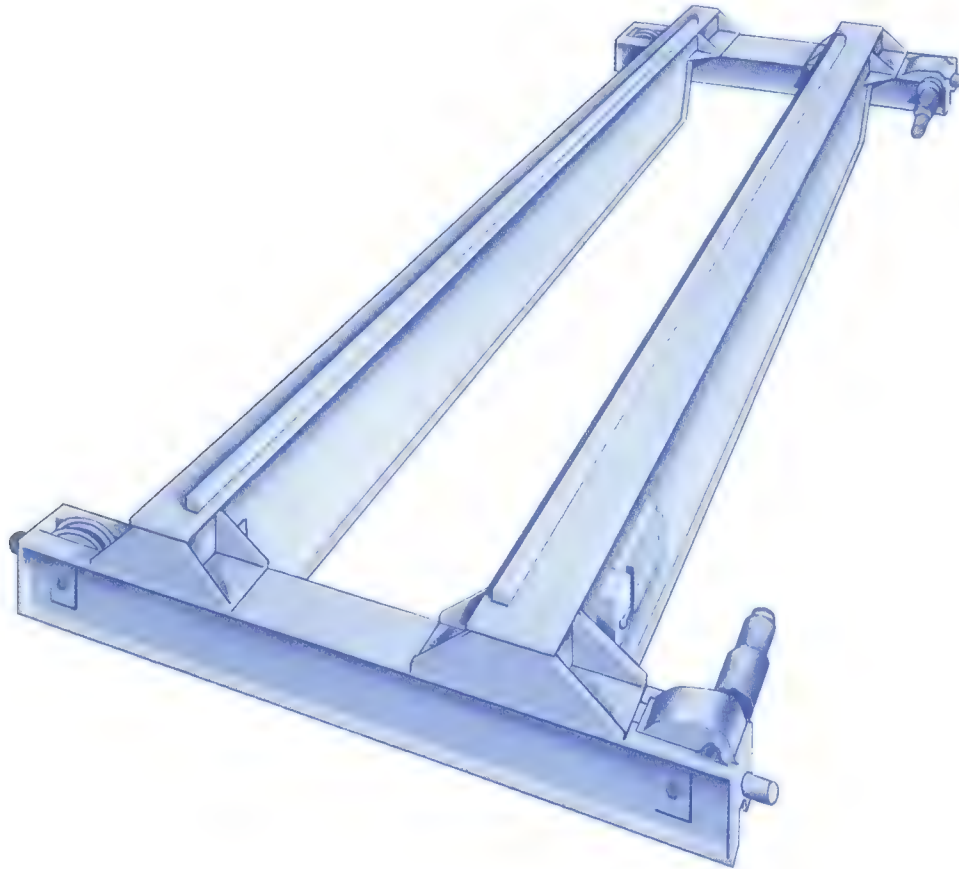
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WRIGHT® WORK-RATED®

SERIES 553
TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE
WELDED PLATE BOX GIRDERS
CAPACITIES 5 to 30 TONS SPANS to 100 FEET



The *Wright Work-rated* Series 553 Top Running Double Girder Motor Driven Dual Drive Crane with welded plate box girders is engineered for industrial service. The double bridge girder design is best where maximum height of lift is important.

The Series 553 top running double girder crane, when combined with a *Wright Work-rated* top running trolley hoist, is an excellent installation where it is practical to support crane runway girders from building columns.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 553 crane is offered in capacities from five through thirty tons, with spans up to 100 feet, and with a standard bridge travel speed of 80 FPM single speed, 140 and 180 FPM are optional.

Bridges consist of two asymmetrical designed welded plate box girders. The intermediate diaphragms are eliminated resulting in substantially less weight. Unique connection to end truck requires only eight bolts for fast installation and positive alignment.

The end trucks are of welded steel structural box construction, and jig welded and bored to provide alignment of wheels, axles and shaft. Wheel or gear replacement is accomplished without dismantling end trucks because of easy-to-remove axle. Rail sweeps and energy absorbing bumpers are included.

The end truck wheels are hardened steel double flange. Wheels are equipped with prelubricated tapered roller bearings, two to each wheel.

The enclosed dual drive helical gear reduction units, complete with ACM control on single and two speed drives, and A.C. disc brakes, provide smooth bridge motion and excellent load control. The Acco ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motion.

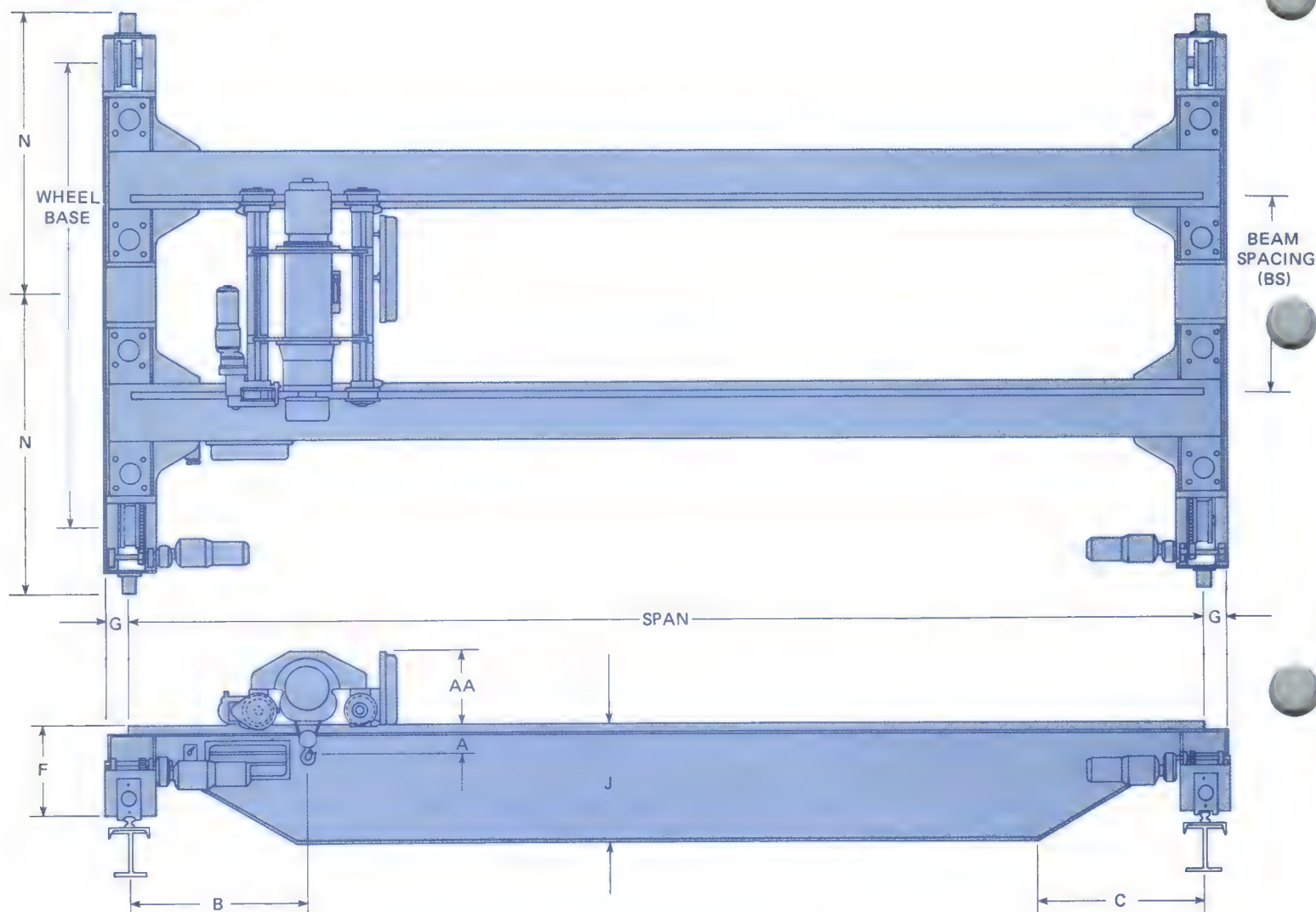
Standard electrical equipment includes NEMA type 3R enclosure, main-line magnetic contactor, manually operated fuseable disconnect switch with lockout provisions, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and rigid track festoon bridge electrification.

Wright cranes are custom designed using pre-engineered components which are built to provide a square crane, exact span, and true alignment. Each crane is fully assembled before shipment.

**5 to 30
TONS**

WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER

55-2



A dimension represents hoist headroom. Refer to *Work-rated* top running trolley-hoist data pages.

B and C dimension represents hoist end approach. Refer to *Work-rated* top running trolley-hoist data pages and add 3/4" to bumper dimension measured from centerline of hook.

AA dimension represents high point of trolley-hoist. Refer to *Work-rated* top running trolley-hoist data pages.

Dimensions in inches unless otherwise specified.

NOTE: Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

Standard crane does not include runway collector bracket and runway collectors.

Order by Product Number. Specify: Exact span, bridge speed, runway rail, beam size and from which runway beam mainline conductors are located (Acco standard on left hand runway), dimension from top of runway rail to operating floor, power supply, horsepower of all motors, and all optional equipment desired.

| End Truck (d) | Wheel Base | Beam Spacing (b) | Wheel Tread Dia. | G | N |
|---------------|------------|------------------|------------------|-------|-----------|
| 4530010 | 13'-0" | 60 | 18 | 7-3/8 | 8'-0" |
| 4530020 | 13'-0" | 78 | 18 | 7-3/8 | 8'-0" |
| 4530030 | 13'-0" | 60 | 18 | 7-3/8 | 8'-0" |
| 4530040 | 13'-0" | 60 | 18 | 7-3/8 | 8'-0" |
| 4530050 | 13'-0" | 78 | 18 | 7-3/8 | 8'-0" |
| 4530060 | 16'-0" | 60 | 18 | 7-3/8 | 9'-6" |
| 4530070 | 16'-0" | 78 | 18 | 7-3/8 | 9'-6" |
| 4530080 | 16'-0" | 96 | 18 | 7-3/8 | 9'-6" |
| 4530090 | 16'-0" | 60 | 18 | 7-3/8 | 9'-6" |
| 4530100 | 16'-0" | 78 | 18 | 7-3/8 | 9'-6" |
| 4530110 | 16'-0" | 96 | 18 | 7-3/8 | 9'-6" |
| 4530120 | 16'-0" | 60 | 18 | 7-3/8 | 9'-7-1/2" |
| 4530130 | 16'-0" | 78 | 18 | 7-3/8 | 9'-7-1/2" |
| 4530140 | 16'-0" | 60 | 18 | 7-3/8 | 9'-7-1/2" |
| 4530150 | 16'-0" | 78 | 18 | 7-3/8 | 9'-7-1/2" |



WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER
55-3 Issued 3-20-87

**5&7-1/2
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | HP for FPM (c) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|-------|-------|----------------|----------------------------|
| | | | | | | | 80 | 140 | 180 | | |
| 5 | 48 | 60 | 5530010 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 1-1/2 | 16,600 | 11,700 |
| | | 78 | 5530020 | 4530020 | | | | | | | |
| | 52 | 60 | 5530030 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 1-1/2 | 17,390 | 11,900 |
| | | 78 | 5530040 | 4530020 | | | | | | | |
| | 56 | 60 | 5530050 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 1-1/2 | 18,180 | 12,100 |
| | | 78 | 5530060 | 4530020 | | | | | | | |
| | 60 | 60 | 5530070 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 1-1/2 | 18,970 | 12,300 |
| | | 78 | 5530080 | 4530020 | | | | | | | |
| | 64 | 60 | 5530090 | 4530010 | 37 | 31-1/4 | 1 | 1-1/2 | 2 | 21,070 | 12,820 |
| | | 78 | 5530100 | 4530020 | | | | | | | |
| | 68 | 60 | 5530110 | 4530010 | 37 | 31-1/4 | 1 | 1-1/2 | 2 | 21,950 | 13,040 |
| | | 78 | 5530120 | 4530020 | | | | | | | |
| | 72 | 60 | 5530130 | 4530010 | 37 | 31-1/4 | 1 | 1-1/2 | 2 | 24,910 | 13,780 |
| | | 78 | 5530140 | 4530020 | | | | | | | |
| | 76 | 60 | 5530150 | 4530010 | 43-1/8 | 31-1/4 | 1 | 1-1/2 | 2 | 27,450 | 14,420 |
| | | 78 | 5530160 | 4530020 | | | | | | | |
| | 80 | 60 | 5530170 | 4530010 | 43-1/8 | 31-1/4 | 1 | 1-1/2 | 2 | 28,520 | 14,680 |
| | | 78 | 5530180 | 4530020 | | | | | | | |
| | 84 | 60 | 5530190 | 4530060 | 43-1/8 | 31-1/4 | 1 | 1-1/2 | 3 | 30,240 | 15,110 |
| | | 78 | 5530200 | 4530070 | | | | | | | |
| 7-1/2 | 88 | 60 | 5530210 | 4530060 | 48-1/8 | 36-1/4 | 1 | 1-1/2 | 3 | 35,570 | 16,450 |
| | | 78 | 5530220 | 4530070 | | | | | | | |
| | 92 | 60 | 5530230 | 4530060 | 48-1/8 | 36-1/4 | 1 | 1-1/2 | 3 | 36,840 | 16,760 |
| | | 78 | 5530240 | 4530070 | | | | | | | |
| | 96 | 60 | 5530250 | 4530060 | 54-1/8 | 36-1/4 | 1 | 1-1/2 | 3 | 40,080 | 17,570 |
| | | 78 | 5530260 | 4530070 | | | | | | | |
| | 100 | 60 | 5530270 | 4530060 | 54-1/8 | 36-1/4 | 1 | 1-1/2 | 3 | 41,430 | 17,910 |
| | | 78 | 5530280 | 4530070 | | | | | | | |
| | 48 | 60 | 5530290 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 2 | 16,600 | 14,576 |
| | | 78 | 5530300 | 4530020 | | | | | | | |
| | 52 | 60 | 5530310 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 2 | 17,390 | 14,770 |
| | | 78 | 5530320 | 4530020 | | | | | | | |
| | 56 | 60 | 5530330 | 4530010 | 31 | 31-1/4 | 1 | 1-1/2 | 2 | 18,600 | 15,080 |
| | | 78 | 5530340 | 4530020 | | | | | | | |
| | 60 | 60 | 5530350 | 4530010 | 37 | 31-1/4 | 1 | 1-1/2 | 2 | 20,200 | 15,480 |
| | | 78 | 5530360 | 4530020 | | | | | | | |
| | 64 | 60 | 5530370 | 4530010 | 37 | 31-1/4 | 1 | 1-1/2 | 2 | 21,070 | 15,700 |
| | | 78 | 5530380 | 4530020 | | | | | | | |
| | 68 | 60 | 5530390 | 4530010 | 37-1/8 | 31-1/4 | 1 | 1-1/2 | 2 | 22,970 | 16,170 |
| | | 78 | 5530400 | 4530020 | | | | | | | |
| | 72 | 60 | 5530410 | 4530010 | 37-1/4 | 31-1/4 | 1 | 1-1/2 | 3 | 26,160 | 16,970 |
| | | 78 | 5530420 | 4530020 | | | | | | | |
| | 76 | 60 | 5530430 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 27,450 | 17,290 |
| | | 78 | 5530440 | 4530020 | | | | | | | |
| | 80 | 60 | 5530450 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 29,230 | 17,730 |
| | | 78 | 5530460 | 4530020 | | | | | | | |
| | 84 | 60 | 5530470 | 4530060 | 48-1/8 | 36-1/4 | 1 | 2 | 3 | 31,670 | 18,340 |
| | | 78 | 5530480 | 4530070 | | | | | | | |
| | 88 | 60 | 5530490 | 4530060 | 48-1/8 | 36-1/4 | 1 | 2 | 3 | 35,570 | 19,320 |
| | | 78 | 5530500 | 4530070 | | | | | | | |
| | 92 | 60 | 5530510 | 4530060 | 48-1/4 | 36-1/4 | 1 | 2 | 3 | 37,760 | 19,870 |
| | | 78 | 5530520 | 4530070 | | | | | | | |
| | 96 | 60 | 5530530 | 4530060 | 54-1/8 | 36-1/4 | 1-1/2 | 2 | 3 | 40,080 | 20,450 |
| | | 78 | 5530540 | 4530070 | | | | | | | |
| | 100 | 60 | 5530550 | 4530060 | 54-1/4 | 36-1/4 | 1-1/2 | 2 | 3 | 42,410 | 21,030 |
| | | 78 | 5530560 | 4530070 | | | | | | | |

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

(d) Max. ASCE Rail = 80 #/Yd.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | HP for FPM (c) | | | Weight lbs. | Wheel Loads lbs. (a) |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|-------|-----|----------------|----------------------------|
| | | | | | | | 80 | 140 | 180 | | |
| 10 | 48 | 60 | 5530570 | 4530010 | 31-1/4 | 31-1/4 | 1 | 1-1/2 | 2 | 16,950 | 17,820 |
| | | 78 | 5530580 | 4530020 | | | | | | | |
| | 52 | 60 | 5530590 | 4530010 | 31-1/4 | 31-1/4 | 1 | 1-1/2 | 2 | 18,170 | 18,120 |
| | | 78 | 5530600 | 4530020 | | | | | | | |
| | 56 | 60 | 5530610 | 4530010 | 37-1/4 | 31-1/4 | 1 | 1-1/2 | 2 | 19,740 | 18,510 |
| | | 78 | 5530620 | 4530020 | | | | | | | |
| | 60 | 60 | 5530630 | 4530010 | 37-1/4 | 31-1/4 | 1 | 1-1/2 | 2 | 20,640 | 18,740 |
| | | 78 | 5530640 | 4530020 | | | | | | | |
| | 64 | 60 | 5530650 | 4530010 | 43 | 31-1/4 | 1 | 2 | 3 | 22,380 | 19,170 |
| | | 78 | 5530660 | 4530020 | | | | | | | |
| | 68 | 60 | 5530670 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 23,850 | 19,540 |
| | | 78 | 5530680 | 4530020 | | | | | | | |
| | 72 | 60 | 5530690 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 26,380 | 20,170 |
| | | 78 | 5530700 | 4530020 | | | | | | | |
| | 76 | 60 | 5530710 | 4530010 | 48-1/8 | 36-1/4 | 1 | 2 | 3 | 28,740 | 20,760 |
| | | 78 | 5530720 | 4530020 | | | | | | | |
| | 80 | 60 | 5530730 | 4530010 | 48-1/8 | 36-1/4 | 1 | 2 | 3 | 29,880 | 21,050 |
| | | 78 | 5530740 | 4530020 | | | | | | | |
| | 84 | 60 | 5530750 | 4530060 | 48-1/4 | 36-1/4 | 1 | 2 | 3 | 33,130 | 21,860 |
| | | 78 | 5530760 | 4530070 | | | | | | | |
| | 88 | 60 | 5530770 | 4530060 | 48-1/4 | 36-1/4 | 1-1/2 | 3 | 3 | 37,330 | 22,910 |
| | | 78 | 5530780 | 4530070 | | | | | | | |
| | 92 | 60 | 5530790 | 4530060 | 54-1/8 | 36-1/4 | 1-1/2 | 3 | 3 | 38,730 | 23,260 |
| | | 78 | 5530800 | 4530070 | | | | | | | |
| | 96 | 60 | 5530810 | 4530060 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 3 | 41,020 | 23,830 |
| | | 78 | 5530820 | 4530070 | | | | | | | |
| | 100 | 60 | 5530830 | 4530060 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 45,410 | 24,930 |
| | | 78 | 5530840 | 4530070 | | | | | | | |
| 15 | 48 | 60 | 5530850 | 4530010 | 31-1/4 | 31-1/4 | 1 | 2 | 3 | 17,670 | 23,840 |
| | | 78 | 5530860 | 4530020 | | | | | | | |
| | 52 | 60 | 5530870 | 4530010 | 37-1/8 | 31-1/4 | 1 | 2 | 3 | 18,830 | 24,140 |
| | | 78 | 5530880 | 4530020 | | | | | | | |
| | 56 | 60 | 5530890 | 4530010 | 37-1/8 | 31-1/4 | 1 | 2 | 3 | 20,160 | 24,470 |
| | | 78 | 5530900 | 4530020 | | | | | | | |
| | 60 | 60 | 5530910 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 21,880 | 24,900 |
| | | 78 | 5530920 | 4530020 | | | | | | | |
| | 64 | 60 | 5530930 | 4530010 | 43-1/8 | 31-1/4 | 1 | 2 | 3 | 22,860 | 25,140 |
| | | 78 | 5530940 | 4530020 | | | | | | | |
| | 68 | 60 | 5530950 | 4530010 | 48-1/8 | 36-1/4 | 1-1/2 | 2 | 3 | 25,010 | 25,680 |
| | | 78 | 5530960 | 4530020 | | | | | | | |
| | 72 | 60 | 5530970 | 4530010 | 48-1/8 | 36-1/4 | 1-1/2 | 3 | 3 | 28,240 | 26,490 |
| | | 78 | 5530980 | 4530020 | | | | | | | |
| | 76 | 60 | 5530990 | 4530010 | 48-1/4 | 36-1/4 | 1-1/2 | 3 | 3 | 30,060 | 26,940 |
| | | 78 | 5531000 | 4530020 | | | | | | | |
| | 80 | 60 | 5531010 | 4530010 | 54-1/8 | 36-1/4 | 1-1/2 | 3 | 3 | 32,220 | 27,480 |
| | | 78 | 5531020 | 4530020 | | | | | | | |
| | 84 | 60 | 5531030 | 4530060 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 35,580 | 28,320 |
| | | 78 | 5531040 | 4530070 | | | | | | | |
| | 88 | 60 | 5531050 | 4530060 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 39,120 | 29,210 |
| | | 78 | 5531060 | 4530070 | | | | | | | |
| | 92 | 60 | 5531070 | 4530060 | 54-3/8 | 36-1/4 | 1-1/2 | 3 | 4 | 42,390 | 30,020 |
| | | 78 | 5531080 | 4530070 | | | | | | | |
| | 96 | 60 | 5531090 | 4530060 | 60-1/2 | 42-1/2 | 1-1/2 | 3 | 4 | 45,880 | 30,900 |
| | | 78 | 5531100 | 4530070 | | | | | | | |
| | 100 | 60 | 5531110 | 4530060 | 60-1/2 | 42-1/2 | 1-1/2 | 3 | 4 | 47,470 | 31,240 |
| | | 78 | 5531120 | 4530070 | | | | | | | |

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

(a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to *Acco Structural Beam Guide* for other requirements.

(b) Beam spacing is wheel gage of top running trolley hoist in Section 34.

(c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.



**WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE— WELDED PLATE BOX GIRDER**

55-5 Issued 3-20-87

**20
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | HP for FPM (c) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|-----|-----|----------------|----------------------------|
| | | | | | | | 80 | 140 | 180 | | |
| 20 | 48 | 60 | 5531130 | 4530030 | 37-1/8 | 31-1/4 | 1-1/2 | 3 | 4 | 18,930 | 30,190 |
| | | 78 | 5531140 | 4530050 | | | | | | | |
| | | 96 | 5531150 | 4530110 | | | | | | | |
| | 52 | 60 | 5531160 | 4530030 | 37-1/4 | 31-1/4 | 1-1/2 | 3 | 4 | 20,610 | 30,610 |
| | | 78 | 5531170 | 4530050 | | | | | | | |
| | | 96 | 5531180 | 4530110 | | | | | | | |
| | 56 | 60 | 5531190 | 4530030 | 43-1/8 | 31-1/4 | 1-1/2 | 3 | 4 | 21,890 | 30,930 |
| | | 78 | 5531200 | 4530050 | | | | | | | |
| | | 96 | 5531210 | 4530110 | | | | | | | |
| | 60 | 60 | 5531220 | 4530030 | 43-1/4 | 31-1/4 | 1-1/2 | 3 | 4 | 23,760 | 31,390 |
| | | 78 | 5531230 | 4530050 | | | | | | | |
| | | 96 | 5531240 | 4530110 | | | | | | | |
| | 64 | 60 | 5531250 | 4530030 | 48-1/8 | 36-1/2 | 1-1/2 | 3 | 4 | 24,950 | 31,690 |
| | | 78 | 5531260 | 4530050 | | | | | | | |
| | | 96 | 5531270 | 4530110 | | | | | | | |
| | 68 | 60 | 5531280 | 4530030 | 48-1/4 | 36-1/2 | 1-1/2 | 3 | 4 | 27,010 | 32,210 |
| | | 78 | 5531290 | 4530050 | | | | | | | |
| | | 96 | 5531300 | 4530110 | | | | | | | |
| | 72 | 60 | 5531310 | 4530030 | 48-3/8 | 36-1/2 | 1-1/2 | 3 | 4 | 30,110 | 33,230 |
| | | 78 | 5531320 | 4530050 | | | | | | | |
| | | 96 | 5531330 | 4530110 | | | | | | | |
| | 76 | 60 | 5531340 | 4530030 | 54-1/4 | 36-1/2 | 1-1/2 | 3 | 4 | 33,280 | 33,770 |
| | | 78 | 5531350 | 4530050 | | | | | | | |
| | | 96 | 5531360 | 4530110 | | | | | | | |
| | 80 | 60 | 5531370 | 4530030 | 54-1/4 | 36-1/2 | 1-1/2 | 3 | 4 | 34,610 | 34,110 |
| | | 78 | 5531380 | 4530050 | | | | | | | |
| | | 96 | 5531390 | 4530110 | | | | | | | |
| | 84 | 60 | 5531400 | 4530090 | 54-1/2 | 36-1/2 | 1-1/2 | 3 | 4 | 38,140 | 34,990 |
| | | 78 | 5531410 | 4530100 | | | | | | | |
| | | 96 | 5531420 | 4530110 | | | | | | | |
| | 88 | 60 | 5531430 | 4530090 | 54-1/2 | 36-1/2 | 1-1/2 | 3 | 4 | 43,000 | 36,200 |
| | | 78 | 5531440 | 4530100 | | | | | | | |
| | | 96 | 5531450 | 4530110 | | | | | | | |
| | 92 | 60 | 5531460 | 4530090 | 60-3/8 | 42-3/4 | 2 | 3 | 4 | 44,640 | 36,610 |
| | | 78 | 5531470 | 4530100 | | | | | | | |
| | | 96 | 5531480 | 4530110 | | | | | | | |
| | 96 | 60 | 5531490 | 4530090 | 60-5/8 | 42-3/4 | 2 | 4 | 5 | 49,090 | 37,730 |
| | | 78 | 5531500 | 4530100 | | | | | | | |
| | | 96 | 5531510 | 4530110 | | | | | | | |
| | 100 | 60 | 5531520 | 4530090 | 60-5/8 | 42-3/4 | 2 | 4 | 5 | 51,800 | 38,400 |
| | | 78 | 5531530 | 4530100 | | | | | | | |
| | | 96 | 5531540 | 4530110 | | | | | | | |

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
- (b) Beam spacing is wheel gage of top running trolley hoist in Section 34.
- (c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.

Contact factory for dimensions when crane is furnished with footwalk.

25 TONS

WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | HP for FPM (c) | | | Weight lbs. | Wheel Loads (a) lbs. |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|-----|-----|----------------|----------------------------|
| | | | | | | | 80 | 140 | 180 | | |
| 25 | 48 | 60 | 5531550 | 4530030 | 37-1/4 | 31-1/4 | 1-1/2 | 3 | 4 | 18,650 | 37,190 |
| | | 78 | 5531560 | 4530050 | | | | | | | |
| | 52 | 60 | 5531570 | 4530030 | 43-1/8 | 31-1/4 | 1-1/2 | 3 | 4 | 19,907 | 37,500 |
| | | 78 | 5531580 | 4530050 | | | | | | | |
| | 56 | 60 | 5531590 | 4530030 | 43-1/4 | 31-1/4 | 1-1/2 | 3 | 4 | 21,720 | 37,960 |
| | | 78 | 5531600 | 4530050 | | | | | | | |
| | 60 | 60 | 5531610 | 4530030 | 48-1/8 | 36-1/4 | 1-1/2 | 3 | 4 | 23,340 | 38,360 |
| | | 78 | 5531620 | 4530050 | | | | | | | |
| | 64 | 60 | 5531630 | 4530030 | 48-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 25,380 | 38,870 |
| | | 78 | 5531640 | 4530050 | | | | | | | |
| | 68 | 60 | 5531650 | 4530030 | 48-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 27,540 | 39,410 |
| | | 78 | 5531660 | 4530050 | | | | | | | |
| | 72 | 60 | 5531670 | 4530030 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 30,960 | 40,270 |
| | | 78 | 5531680 | 4530050 | | | | | | | |
| | 76 | 60 | 5531690 | 4530030 | 54-1/4 | 36-1/4 | 1-1/2 | 3 | 4 | 32,290 | 40,600 |
| | | 78 | 5531700 | 4530050 | | | | | | | |
| | 80 | 60 | 5531710 | 4530030 | 54-1/2 | 36-1/2 | 2 | 3 | 5 | 35,710 | 41,450 |
| | | 78 | 5531720 | 4530050 | | | | | | | |
| | 84 | 60 | 5531730 | 4530120 | 54-5/8 | 37 | 2 | 4 | 5 | 41,020 | 42,780 |
| | | 78 | 5531740 | 4530130 | | | | | | | |
| | 88 | 60 | 5531750 | 4530120 | 54-3/8 | 43 | 2 | 4 | 5 | 43,760 | 43,460 |
| | | 78 | 5531760 | 4530130 | | | | | | | |
| | 92 | 60 | 5531770 | 4530120 | 60-5/8 | 43 | 2 | 4 | 5 | 48,090 | 44,550 |
| | | 78 | 5531780 | 4530130 | | | | | | | |
| | 96 | 60 | 5531790 | 4530120 | 66-1/4 | 43 | 2 | 4 | 5 | 52,200 | 45,570 |
| | | 78 | 5531800 | 4530130 | | | | | | | |
| | 100 | 60 | 5531810 | 4530120 | 66-3/8 | 43 | 2 | 4 | — | 56,000 | 46,530 |
| | | 78 | 5531820 | 4530130 | | | | | | | |

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
 (b) Beam spacing is wheel gage of top running trolley hoist in Section 34.
 (c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.
 Contact factory for dimensions when crane is furnished with footwalk.



WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE— WELDED PLATE BOX GIRDER
55-7 Issued 3-20-87

**30
TONS**

| Capacity in Tons | Max. Span ft. | Beam Spacing in. (b) | Crane Product Number | End Truck Product Number | J in. | F in. | HP for FPM (c) | | | Weight lbs. | Wheel Loads lbs. (a) |
|------------------------|---------------------|----------------------------|----------------------------|--------------------------------|----------|----------|----------------|-----|-----|----------------|----------------------------|
| | | | | | | | 80 | 140 | 180 | | |
| 30 | 48 | 60 | 5531830 | 4530040 | 43-1/8 | 31-1/4 | 1-1/2 | 3 | 4 | 19,560 | 43,160 |
| | | 78 | 5531840 | 4530050 | | | | | | | |
| | 52 | 60 | 5531850 | 4530040 | 43-1/4 | 31-1/4 | 1-1/2 | 3 | 4 | 20,960 | 43,510 |
| | | 78 | 5531860 | 4530050 | | | | | | | |
| | 56 | 60 | 5531870 | 4530040 | 48-1/8 | 36-1/4 | 1-1/2 | 3 | 4 | 22,540 | 43,910 |
| | | 78 | 5531880 | 4530050 | | | | | | | |
| | 60 | 60 | 5531890 | 4530040 | 48-1/4 | 36-1/2 | 2 | 3 | 4 | 24,960 | 44,510 |
| | | 78 | 5531900 | 4530050 | | | | | | | |
| | 64 | 60 | 5531910 | 4530040 | 48-1/2 | 36-1/2 | 2 | 3 | 5 | 27,560 | 45,170 |
| | | 78 | 5531920 | 4530050 | | | | | | | |
| | 68 | 60 | 5531930 | 4530040 | 54-3/8 | 36-1/2 | 2 | 4 | 5 | 29,210 | 45,580 |
| | | 78 | 5531940 | 4530050 | | | | | | | |
| | 72 | 60 | 5531950 | 4530040 | 54-3/8 | 36-1/2 | 2 | 4 | 5 | 32,490 | 46,400 |
| | | 78 | 5531960 | 4530050 | | | | | | | |
| | 76 | 60 | 5531970 | 4530040 | 54-1/2 | 36-1/2 | 2 | 4 | 5 | 34,560 | 46,910 |
| | | 78 | 5531980 | 4530050 | | | | | | | |
| | 80 | 60 | 5531990 | 4530040 | 54-5/8 | 36-3/4 | 2 | 4 | 5 | 36,070 | 47,790 |
| | | 78 | 5532000 | 4530050 | | | | | | | |
| | 84 | 60 | 5532010 | 4530140 | 60-1/2 | 43 | 2 | 4 | 5 | 44,180 | 49,321 |
| | | 78 | 5532020 | 4530150 | | | | | | | |
| | 88 | 60 | 5532030 | 4530140 | 60-3/4 | 43 | 2 | 4 | 5 | 46,730 | 49,960 |
| | | 78 | 5532040 | 4530150 | | | | | | | |
| | 92 | 60 | 5532050 | 4530140 | 66-3/8 | 43 | 2 | 4 | — | 52,580 | 51,420 |
| | | 78 | 5532060 | 4530150 | | | | | | | |
| | 96 | 60 | 5532070 | 4530140 | 66-3/8 | 43 | 2 | 4 | — | 54,470 | 51,890 |
| | | 78 | 5532080 | 4530150 | | | | | | | |
| | 100 | 60 | 5532090 | 4530140 | 66-3/4 | 43 | 2 | 4 | — | 59,360 | 53,120 |
| | | 78 | 5532100 | 4530150 | | | | | | | |

Dimensions in inches unless otherwise specified. See Page 55-2 for additional dimensions.

- (a) Wheel load includes allowance of 15% impact with a maximum hoist speed of 30 FPM standard industrial service. Refer to Acco Structural Beam Guide for other requirements.
 (b) Beam spacing is wheel gage of top running trolley hoist in Section 34.
 (c) HP is for each motor — two required per crane.

NOTE: Dimensions, weights, HP and wheel loads are for cranes less footwalk.
 Contact factory for dimensions when crane is furnished with footwalk.

STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net load at the hook of any type of hoist. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin of strength to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BRIDGE GIRDERS Computer selected welded box girders feature the concept of asymmetrical design with continuous welding to achieve greatest strength with minimum dead weight. Factory cambered girders have a maximum total load deflection 1/800 of span. Full length diaphragms are utilized for stiffness. Girders are notched at ends and set on top of end trucks. Unique horizontal shear rings mate girder to end truck, assure accurate girder alignment at installation and absorb horizontal shear forces.

Girder trolley rails are high strength steel bars, designed to carry trolley wheel loads with minimum wear.

END TRUCKS The end truck frame shall be welded from structural shapes into a single unit as to prevent distortion and mismatch of gears under maximum rated load. End truck wheelbase shall be a minimum of 16% of the crane span. One wheel in each truck shall be geared and meshed with a pinion.

The truck shall contain diaphragm members welded to truck frames to maintain alignment and distribute truck loads uniformly on inner and outer truck member. A wheel gear protecting guard shall be part of the end truck. The truck shall be designed so that the drop of the truck will be limited to one inch in case of axle or wheel failure. Attachment of end truck to bridge beam shall be by shear rings with bolts to insure alignment.

CRANE WHEELS Crane wheels shall be double flange steel and have tread surfaces hardened to 375 to 425 Brinell. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium base grease and provided with suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment.

Drive wheels shall be matched pairs within .001 inches per inch of diameter or a total of .010 inches on the diameter whichever is smaller.

RUNWAYS The crane runway, runway rails, and stops shall be furnished and installed by the user.

The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway rails should be standard rail sections of a proper size for the crane to be installed and must be provided with proper rail splices.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the American Welding Society standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts, and the welds shall manifest workmanlike appearance.

CRANE DRIVE Each end truck shall be provided with a helical gear motor reducer. The drive motor for each truck shall be fully enclosed, 30 minute duty rated Class B insulation in a NEMA frame and shall comply with NEMA performance specifications. A spring set, electrically released A.C. disc type brake shall be integrally mounted on each reducer in line with the motor. The motors shall be integral with fully enclosed oil splash lubricated gear reducers. The gear reduction shaft shall be supported by precision ball or roller bearings.

BEARING LIFE All bearings in the crane wheels, those supporting the drive shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

BRIDGE BUMPERS The bridge shall be provided with bumpers capable of stopping the crane (not including the lifted load) at a rate of deceleration not to exceed three feet per second per second when traveling in either direction at 20% of rated speed. The bumpers shall have sufficient energy absorbing capacity to stop the crane when traveling at a speed of at least 40% of the rated load speed.

RAIL SWEEPS Bridge trucks shall be equipped with sweeps which extend below the top of the rail and project in front of the crane wheels.

ELECTRICAL CONTROLS Electrical controls shall be single speed or multi speed as determined by speed requirements. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA 3R enclosure actuated from a pendant push button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed motors or two speed motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Rigid track flatwire festoon shall be provided with the crane. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electric Code and complying with Fire Underwriters specifications.

PAINTING The crane shall be painted before shipment with one coat of mustard yellow lead free chromate paint.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

**Material Handling Group**

1110 East Princess Street, York, PA 17403
Telephone (717) 843-1523 Telex 84-0411
FAX (717) 846-5387

Downey, California

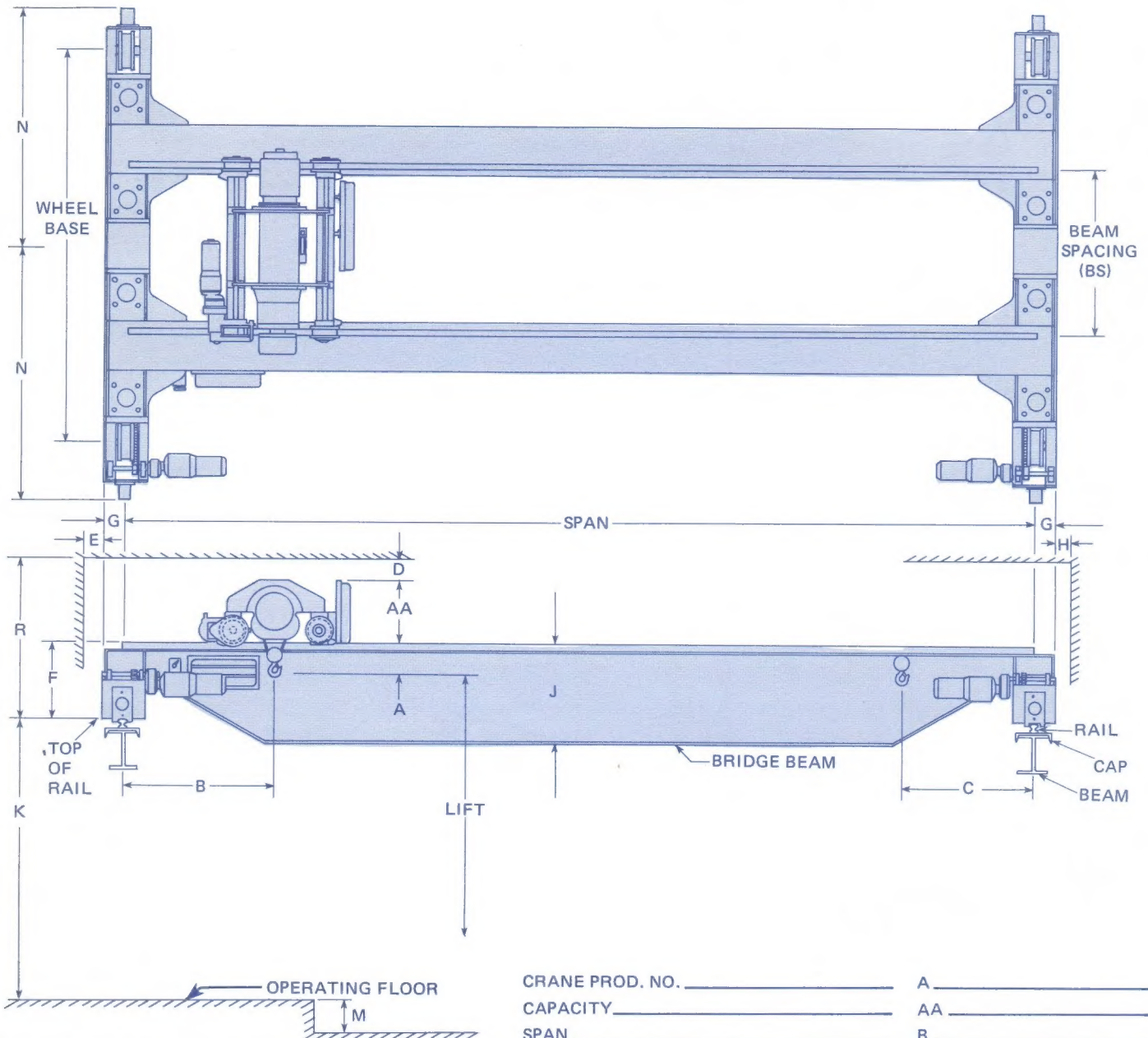
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Telephone (213) 862-8101 Telex 69-8196

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WORK-RATED® SERIES 553 TOP RUNNING DOUBLE GIRDER
MOTORIZED DUAL DRIVE CRANE — WELDED PLATE BOX GIRDER

55-9
Issued 8-15-88



Note: Left-hand runway is standard location of runway conductors.
Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER: _____
CUST. ORDER NO. _____
ACCO QUOTE NO. _____
ACCO JOB NO. _____
DATE _____
CUSTOMER APPROVAL _____

DATE _____ SIGNATURE _____

Acco Chain & Lifting Products Division
A member of the Acco Material Handling Group

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Telephone 717 741-4863 Telex 84-0412
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RAIL _____ G _____
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POWER SUPPLY _____ J _____
K _____
M _____
N _____
R _____
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